HEALTH ADMINISTRATION IN MIZORAM: A STUDY OF FUNCTIONING OF HEALTH SUB-CENTRES

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

MARIE ZODINPUII

MZU REGISTRATION NO: 1702974

Ph.D. REGISTRATION NO: MZU/Ph.D./1354 of 26.07.2019

DEPARTMENT OF PUBLIC ADMINISTRATION

SCHOOL OF SOCIAL SCIENCES

MAY, 2024

HEALTH ADMINISTRATION IN MIZORAM:
A STUDY OF FUNCTIONING OF HEALTH SUB-CENTRES

BY

Marie Zodinpuii

Department of Public Administration

Prof. Srinibas Pathi

Supervisor

Submitted

In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in Public Administration of Mizoram University, Aizawl.

MIZORAM UNIVERSITY

(A Central university established by an Act of Parliament of India,2000)

AIZAWL: MIZORAM

PIN-796004

Prof. Srinibas Pathi
Senior Professor

Department of Public Administration
Mizoram University
(A Central university)
Tanhril, Aizawl – 796004

CERTIFICATE

This is to certify that the Thesis entitled **"Health Administration in Mizoram: A Study of Functioning of Health Sub-Centres"** submitted by Ms. Marie Zodinpuii has been written under my guidance. This Thesis is an original work of research and has not been submitted to any other University for any research degree. It covers the topic of the research adequately

(Prof. SRINIBAS PATHI)
Supervisor
Department of Public Administration
Mizoram University

Place: Aizawl

Date: 13.05.2024

DECLARATION

I, **Marie Zodinpuii**, do hereby declare that the subject matter of this thesis is the record of work done by me, that the contents of this thesis do not form basis of the award of any previous degree to me or to the best of my knowledge, to anybody else, and that the thesis has not been submitted by me for any research degree in any other University/Institute.

This is being submitted to the Mizoram University for the degree of Doctor of Philosophy in Public Administration.

(MARIE ZODINPUII)
Regn. No: MZU/Ph.D./1354 of 26.07.2019

(PROF. SRINIBAS PATHI)
Head
Department of Public Administration

(PROF. SRINIBAS PATHI)
Supervisor

ACKNOWLEDGEMENT

First and foremost, I thank the Good Lord for his countless blessings. Through His grace, I have been bestowed with the resilience, and the opportunity to overcome seemingly insurmountable challenges, enabling me to complete this study on time.

I am wholly indebted to my Supervisor Prof. Srinibas Pathi, Senior Professor of Public Administration, Mizoram University, for his expert and inestimable guidance. His unwavering patience, motivation, and inspiration have been the driving force behind the successful completion of this endeavour.

I extend my thanks to the faculty and staff of the Department of Public Administration, Mizoram University for their assistance during this research.

I would like to express my gratitude to the beneficiaries, respondents, and officials at the Sub Centres/Clinics who participated in my field study. Their cooperation and willingness to share valuable data and information were essential to the success of this research.

I appreciate Dr. H. Lalzidinga, Principal,Govt. Hrangbana College, Ms. Lianchhingpuii, Head of the Department of Public Administration, and the entire faculty for their unwavering support.

Special thanks to Lalropianga(Avala) for his invaluable editing assistance and to my dear friends, Dr. Rohmingliani, Dr Doumuanlal, Ms Lalsangpuii Zadeng Ms.H.Lalengzuali, and Dr. B. Lalfakawmi, for their constant encouragement.

Lastly, I am grateful to my husband, parents, sister-in-law and children for their steadfast moral support and prayers throughout this journey.

(MARIE ZODINPUII)

Regn.No: MZU/Ph.D./1354 of 26.07.2019

CONTENTS

LIST OF ABBREVIATIONS

AAR	Age-Adjusted Rate
AB-HWCs	Ayushman Bharat- Health and Wellness Centres
AB-NHPM	Ayushman Bharat-National Protection Mission
AEFI	Adverse Events/Effects Following Immunization
AFP	Alpha-Fetoprotein
AMC	Aizawl Municipal Corporation
AMRIT	Affordable Medicines and Reliable Implants for Treatment
ANC	Ante Natal Care
ANM	Auxiliary Nurse Midwife
ARI	Acute Respiratory Infection
ART	Anti-Retroviral Therapy
ASHA	Accredited Social Health Activist
AWW	Anganwadi Worker
AYUSH	Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy
BHU	Basic Health Unit
BMS	Baptist Mission Society
BP	Blood Pressure
CGHS	Central Government Health Scheme
CHC	Community Health Centre
CHO	Community Health Officer
CMO	Chief Medical Officer

COPD	Chronic Obstructive Pulmonary Diseases
COVID-19	Corona Virus Disease 2019
CVD	Cardio Vascular Diseases
DALYs	Disability Adjusted Life Years
DDK	Disposable Delivery Kits
DGHS	Directorate General of Health Services
DH&ME	Directorate of Hospital & Medical Education
DHQ	District Headquarters
DHS	Directorate of Health Services
DHs	District Hospitals
DM	Diabetes Mellitus
DOTs	Directly Observed Treatments
EAG	Empowered Action Group
ESI	Employee State Insurance
GDP	Gross Domestic Product
GP	General Practitioner
HDI	Human Development Index
HIV	Human Immuno Deficiency Virus
HWCs	Health and Wellness Centres
HWF	Health Worker Female
HWM	Health Worker Male

HWOs	Health and Wellness Officers
ICDS	Integrated Child Development Services
ICT	Information Communication Technology
IDSP	Integrated Disease Surveillance Project
IEC	Information, Education and Communication
IFA	Iron Folic Acid
IMA	Indian Medical Association
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IPHS	Indian Public Health Standards
IUCD	Intra-Uterine Contraceptive Devices
LHV	Lady Health Visitor
MAS	Mahila Arogya Samiti
MCH&FW	Maternal and Child Health and Family Welfare
MDGs	Millennium Development Goals
MDT	Multi Drug Therapy
MLHP	Mid-Level Health Provider
MNF	Mizo National Front
MO	Medical Officer
MOS	Memorandum of Settlement
MPW	Multipurpose Workers
MSACS	Mizoram State Aids Control Society
MTP	Medical Termination of Pregnancy

NACO	National AIDS Control Organisation
NACP	National AIDS Control Programme
NCDs	Non-Communicable Diseases
NER	North Eastern Region
NGOs	Non-Governmental Organization
NHM	National Health Mission
NHP	National Health Policy
NHRM	National Rural Health Mission
NURM	National Urban Health Mission
NLEP	National Leprosy Eradication Programme
NPCB	National Programme for Control of Blindness
NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke
NPPCD	National Programme For Prevention and Control of Deafness
NUBDCP	National Vector Borne Disease Control Programme
NVBDCP	National Vector Borne Disease Control Programme
OPD	Outpatient Department
ORS	Oral Rehydration Therapy
PHC	Primary Health Care
PHCs	Primary Health Centres
PLHIV	People Living with HIV
PM-JAY	Prime Minister Jan Arogya Yojana

PNC	Post Natal Care
PPH	Postpartum Haemorrhage
PPP	Public Private Partnership
PPTCT	Prevention of Parent-to-Child Transmission
PRI	Panchayati Raj Institution
RAT	Rapid Antigen Test
RCH	Reproductive and Child Health
RD	Rural Development
RDT	Rapid Diagnostic Test
RDK	Rapid Diagnostic Test Kit
RHC	Rural Health Clinic
RMO	Regional Medical Office
RNTCP	Revised National Tuberculosis Control Programme
RSBY	Rashtriya Swasthya Bima Yojana
RTI	Reproductive Tract Infection/ Respiratory Tract Infection
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SBA	Skilled Birth Attendance/Standard Treatment Protocol
SECC	Socio-Economic and Caste Census
SC	Sub Centre
SCHIS	Senior Citizen Health Insurance Scheme
SDGs	Sustainable Development Goals
SDHs	Sub District / Sub Divisional Hospital

SECC	Socio Economic Cast Census
SHCs	Secondary Health Care/Sub Health Centre
SHs	State Hospitals
SRS	Sample Registration System
STI	Sexually Transmitted Infection
TFR	Total Fertility Rate
THQ	Tehsil Headquarters
TT	Tetanus
UHC	Universal Health Coverage/Urban Health Care
UNICEF	United Nations Children's Funds
VHAs	Voluntary Health Agencies
VHND	Village Health and Nutrition Day
WCD	Women and Child Development
WHO	World Health Organization

LIST OF TABLES

LIST OF FIGURES

APPENDICES

PREFACE

Primary Health Care forms the foundation of all healthcare delivery services and administration in a country. It is most effective and closest to the people since it is the first point of contact that people have with the health care system of the country. While the primary focus of Primary Health Care centres around reproductive and child health, they also provide a range of services from promotion and prevention to a basic level of curative care including screening and management of Non-Communicable Diseases.

The present work is an attempt to study the working of the Health Sub Centres in Mizoram, with some information about the genesis, growth, and evolution of the primary health care delivery system in India, in general, and a conceptual overview of health and health care delivery system in Mizoram. The study is done specifically on the administration of primary healthcare delivery services in Aizawl District and Lunglei District. These two districts have been chosen since they represent the northern and southern parts of Mizoram respectively-Aizawl being the state capital and the headquarters in the northern side of the state and Lunglei District, the southern headquarters representing the 'South Mizoram', the largest district in terms of area, and the seat of the High Powered Committee.

The first and introductory chapter deals with a brief introduction to the topic, the concept and importance of health, primary health care and Health Sub Centres, the importance and significance of the present study, a review of different sources of literature, a statement of the problem, scope and objectives of the study, the Research Questions, Methodology adopted for the study and Chapterization of the present study.

The second chapter discusses the conceptual framework and principles of Health Administration from global, national and state perspectives. The concept of health, the three leading approaches to health- the medical, holistic and wellness model, the concept of healthcare, the health system, sector and agencies of the healthcare system, levels of healthcare, and changing concepts of health will be discussed at length. This chapter also discusses Comprehensive Healthcare, Basic Health Services, Primary Health Care and its basic concept, Elements of Primary

Healthcare, Principles of Primary Health Care, Essential components of Primary Healthcare, Elements of Primary Healthcare, extended elements in the 21st Century ,the Millennium Development Goals and Primary Healthcare, the Millenium Development Goals and Health related Indicators, Primary Healthcare and the Sustainable Development Goals with health-related indicators and finally a brief look at Health care in India and the Covid-19 pandemic.

The third chapter discusses the historical perspective of Health Administration in India, with some information about the genesis and evolution of health care in general, and primary healthcare in particular. It discusses the background of health administration in India from ancient India during the Vedic Period, the Buddhist Period and the development of healthcare during the medieval period and the advent of Christianity and the initiation of modern system medicine and the subsequent development of healthcare, medical training and education during the British Rule in India. The position of the healthcare delivery system pre and post-independence is discussed in some detail highlighting the basic premises of the Alma Ata Declaration of 1978 and the evolution of Primary Healthcare in India. The Five-Year Plans with health-related factors and Health Policies, and Missions are also highlighted. Finally, the chapter ends with a brief discussion of the Ayushman Bharat with its two interrelated components-Health and Wellness Centres and *Ayushman Bharat Yojana*-National Health Protection Mission (AB-NHPM) or Pradhan Mantri Jan Arogya Yojana (PM-JAY).

The fourth chapter is a discussion on the profile of Mizoram State focusing on its geography including the general topography, the climate, the lakes and rivers, a brief political and administrative history and changes from traditional chieftainship, its abolition, creation of District and Regional Councils under the Sixth Schedule of the Constitution, insurgency and the attainment of statehood, status and challenges related to Communication and Transport, economic features of the state including agriculture, horticulture, forests, industry, mineral and tourism sectors, the general demography, health status and pertinent issues of healthcare specific to Mizoram- detailing the achievements as well as areas of concern - the toughest challenges in the health sphere ranging from communicable diseases like HIV/AIDS, Malaria and Non

Communicable diseases like Cancer arising from the rampant use of Tobacco products, cardiovascular and lifestyle and age-related diseases, malnutrition etc.

The fifth chapter provides a conceptual overview of the working of Health Sub Centres in Mizoram. Since an in-depth study of this nature can be very exhaustive, there is a need to limit the geographical parameter of the study, the study is done specifically on the administration of primary healthcare delivery services in Aizawl District and Lunglei District. Since Aizawl is the state capital and headquarters in the north, and Lunglei District, the largest district in Mizoram and the seat of the High-Powered Committee, represents the south, these two districts were chosen.

The sixth chapter discusses the analysis of the field study in selected sub-centres in Aizawl and Lunglei focussing on respondents' characteristics, manpower availability, availability of infrastructure and facilities, availability of services, standard of services, people's awareness, opinion and satisfaction about the function and role of the Sub Centre. The ideas and opinions of the officials-Health and Wellness Officers, Trained ANM and MPW- working in the Sub Centres, suggested remedial measures, as well as the role of ASHAs in service delivery, have been discussed covering Health Sub Centres and Clinics in Aizawl and Lunglei.

The seventh and last chapter is divided into two parts. The first part covers a summary of all the previous chapters, Chapter One, Chapter Two, Chapter Three, Chapter Four, Chapter Five and Chapter Six. The Second part discusses the research questions and general conclusion, highlighting the major findings of the study. Also, it contains possible remedial solutions and suggested measures to be taken for effective Primary Healthcare Delivery Services in Mizoram through the working of the Health Sub-centres/Health and Wellness Centres, in providing promotive, preventive and basic level of curative services to the people of Mizoram, their set up and functioning in Mizoram.

CHAPTER I
INTRODUCTION

The World Health Organisation (WHO) has defined health as: “a state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity”[1]. Healthcare administration and the well-being of the population serve as critical indicators of a nation's development. Development is fundamentally about enhancing citizens' welfare and quality of life, offering them opportunities for a more comfortable and fulfilled existence. Within this context, health assumes paramount importance as a key determinant of a contented life.

Health goes beyond the mere absence of illness; it encompasses the overall functioning of the human body, encompassing mental, physical, and social well-being. A person's ability to fully realise their potential and contribute meaningfully to society hinges on their overall health status. As individuals and citizens of a nation, the state of our health deeply influences our capacity to engage in meaningful activities and participate in the nation's progress. Recognizing healthcare administration as a pivotal aspect of development entails ensuring the availability, accessibility, and quality of healthcare services. By prioritising health, nations can build a foundation for sustainable growth and prosperity. Healthier populations are more productive, leading to economic growth and social stability.

Governments and policymakers bear a crucial responsibility in emphasizing the importance of strong healthcare systems, proactive planning, and forward-looking initiatives for the all-inclusive well-being of their populations. By allocating resources towards the enhancement of healthcare infrastructure, fostering advancements in medical research, and advocating public health initiatives, societies can anticipate enjoying the advantages of improved well-being and heightened prosperity. The journey toward development fundamentally requires the intentional elevation of health as an essential human entitlement and a foundational cornerstone upon which societal advancement is constructed. A nation that places a premium on the health of its citizens is, in essence, ensuring their capacity to lead enriching lives, thereby

[1] World Health Organization. (1948). The Constitution of the World Health Organization. *WHO Chronicle* **1**:29, 1944

empowering them to contribute their unique talents and proficiencies to the collective augmentation and prosperity of the nation.

Nothing is more important to a country than the health and happiness of its citizens. The report of "The Commission on Macroeconomics and Health," published in 2000 by the World Health Organization (WHO)[2], established the link between health and wealth by arguing that healthy people generate wealth, and ill health and disease significantly impact the growth momentum.The report emphasizes that the well-being of a nation's population and its economic growth are closely intertwined, with health playing a pivotal role in driving economic development. The report underlines the notion that healthy individuals are more likely to contribute actively to economic activities, thereby generating wealth forthe nation. On the other hand, the prevalence of illness and disease can significantly impede a country's growth momentum. This correlation between health and economic prosperity highlights the importance of investing in healthcare and public health measures to foster a productive and thriving society - Individuals in good health contribute to economic prosperity, whereas the presence of illness and disease substantially hinders progress. In a global population that is ageing, India's advantageous demographic of 40 percent young and productive individuals can be a valuable asset, provided they maintain good health. Sick individuals are not productive contributors to wealth[3].

Healthcare covers a wide range of individual health-related services, including the distribution of information, education, and efforts to prevent diseases, as well as timely identification, suitable medical care, and rehabilitation. It constitutes a comprehensive approach to promoting and safeguarding the well-being of individuals at all stages of their health journey. At the forefront of healthcare is the dissemination of essential information and knowledge to empower individuals with an understanding of health-related issues which provides individuals with the essential resources to make knowledgeable decisions regarding their lifestyle preferences, preventive actions, and approaches to seeking good health.

---

[2]Jeffrey D. Sachs (2001), '*Macroeconomics and Health: Investing in Health for Economic Development* (Geneva: WHO,2001)

[3]K.S. Rao (2017), '*Do we care? India's Health Care System*', New Delhi, Oxford University Press, preface x.

Preventing diseases before they manifest is a critical aspect of healthcare. Proactive measures, such as vaccination campaigns, health screenings, and awareness programmes, hold a central position in decreasing the occurrence of illnesses and improving public health outcomes. Prompt and accurate diagnosis is essential for effective healthcare management. Access to modern medical technologies and skilled healthcare professionals ensures timely identification of health conditions, enabling targeted interventions and personalized treatment plans.

The core of healthcare lies in providing appropriate and evidence-based treatment for various health conditions. Medical interventions encompass a wide array of therapeutic approaches, from medication and surgeries to physical therapies and alternative treatments, tailored to address the unique requirements of individuals. Rehabilitation constitutes a fundamental element of healthcare, especially for individuals recovering from injuries, surgeries, or chronic conditions. Through specialized rehabilitation programmes, patients regain physical function, psychological well-being, and social integration, enhancing their quality of life and overall recovery process. Health Care Services include "organization, delivery, staffing, regulatory and quality control"[4].

Primary Healthcare (PHC) serves as the initial and foremost interface for citizens, households, and groups with a nation's healthcare services and system. Primary health care (PHC) is essential health care made universally accessible to individuals and acceptable to them, through full participation and at a cost the community and country can afford. As such, it serves as the cornerstone of all healthcare delivery services within a country and is consistently accessible by the general public. Operating on the foundational principles of inclusiveness, PHC engages all stakeholders to ensure that healthcare remains equitable and financially viable for everyone. Serving as the foundation of the healthcare system, PHC plays a fundamental and integral role in advancing the general health and overall well-being of the community. One distinguishing characteristic of PHC is its extensive reach, extending its services even to the most remote and marginalized communities.

[4] B.Thangdailova (2003), '*Modernization of Health Care Services in Mizoram*' in R.N. Prasad and A.K.Aggarwal (ed.). Modernization of Mizoram, Mittal Publications, New Delhi, p.30

With a primary focus on preventive measures, health education, and early intervention, PHC strives to address health challenges at their inception, thereby lessening the burden of diseases and paving the way for improved health outcomes. Moreover, PHC serves as a cost-effective approach to healthcare delivery. By emphasizing preventive measures and promoting healthy lifestyles, it reduces the need for expensive medical interventions and hospitalizations. This economic feasibility ensures that healthcare services are accessible to everyone, regardless of their social and economic circumstances. The success of PHC lies in its all-inclusive approachto healthcare, addressing not solely physical health, but also mental, emotional, and social welfare. This comprehensive approach recognizes the interconnectedness of various aspects of health and strives to enhance the overall standard of living of individuals and communities.

Primary Healthcare is an indispensable component of medical care, embraced and endorsed by all sections of society. By involving all stakeholders, focusing on prevention, and ensuring economic feasibility, PHC serves as the foundation of the entire healthcare framework, driving toward a healthier and more inclusive society. PHC is a crucial element in achieving a satisfactory standard of health among individuals, which in turn facilitates their ability to lead a productive life in political, social, and economic spheres[5].

India has been a pioneer in embracing the primary healthcare approach, recognizing its significance and potential impact on the nation's health and well-being. As one of the early adopters of primary healthcare model, India has demonstrated a commitment to providing accessible and affordable healthcare services to its vast and diverse population. Several years prior to the historic Alma-Ata Declaration of 1978[6], India already embraced a primary health strategy founded on the idea that incapacity to pay should not prevent people from access to health care services.

[5] A.B.Hiramani (2016), ‘ *Health Education in Primary Health Care’*, New Delhi: B.R. Publishing Corporation.p.1

[6] The International Conference on Primary Health Care (PHC), which brought together 134 nations and 67 international organizations in Alma-Ata, Kazakhstan, in 1978—the year China abstained—produced the Alma Ata Declaration. Primary health care (PHC) was defined during the conference and given official international recognition as a means of achieving the conference's stated aim of achieving "Health for All" by the year 2000.

The Bhore Committee, alternatively referred to as the Health Survey and Development Committee constituted a landmark initiative led by Sir Joseph Bhore in 1946. This committee was established to conduct a comprehensive survey of the assessment of the healthcare situation in India and the formulation of strategies for its advancement. Within its findings, the Bhore Committee highlighted the urgent need to prioritize healthcare services for rural populations and individuals with low socioeconomic status. These vulnerable groups faced significant challenges in accessing healthcare due to geographical remoteness and financial constraints. The committee recognized that equitable distribution of healthcare services was essential to bridge the healthcare divide between urban and rural areas. The report emphasized the significance of social orientation in healthcare delivery systems. It advocated for a people-centric approach that focused on the overall well-being of the community. This involved integrating public health initiatives, preventive measures, and community participation to cater to the healthcare requirements of the general public effectively.

The suggestions put forth by the Bhore Committee played a crucial role in shaping India's healthcare policies and programmes. Its emphasis on primary healthcare, preventive measures, and community engagement laid the basis for establishing a strong healthcare infrastructure throughout the nation. Since the issuance of the Bhore Committee report, India has made considerable strides in improving its healthcare system. Initiatives like the creation of Primary Health Centres (PHCs) and Sub Health Centres (SHCs) have widened healthcare availability in rural regions. The emphasis on community health workers and grassroots-level interventions has empowered local communities to take an active role in promoting their health and well-being. The enduring impact of the Bhore Committee continues to guide India's healthcare efforts, emphasizing the importance of social equity and inclusivity in healthcare delivery. By prioritizing the health needs of marginalized communities and fostering community engagement, India strives to build a strong and equitable healthcare system for all its citizens.

The inception of the initial Five-Year Plan spanning from 1951 to 1955 activated the Community Development Programme in 1952, which subsequently paved the way for methodical healthcare planning across the nation. The Community Development Programme was a comprehensive initiative that encompassed various

aspects, including health and sanitation. Establishing Primary Health Centres (PHCs) and Sub Health Centres to provide essential healthcare services that the local populace could easily access was one of its main goals. The objective was to make it easier for individuals to assume an active and involved role in the facilitation and delivery of healthcare services while ensuring their acceptability and affordability. Additionally, the programme sought to uphold the values of self-reliance and independent choice among the communities.

It was hoped that adopting this strategy would result in a more equal distribution of health services among the population and would respect the notion that people and communities were the primary contributors to their own health, given that majority of choices pertaining to health would be in their control. At the same time, to empower them to make informed decisions in health matters, it was also understood that individuals in the community had to be provided with the required knowledge and skills so that they could exercise their power in a more responsible manner. As a result, a diverse array of integrated medical treatments is included among core principles of primary healthcare delivered by healthcare facilities, personnel, social organizations, and the people[7].

Providing and maintaining quality primary healthcare to a vast and varied populace, in a country like India, is an immensely challenging task. Despite nearly seven decades of independence, chronic diseases like cardiovascular conditions, respiratory disorders, diabetes, different forms of cancer, and injuries continue to be major concerns. Additionally, communicable diseases related to maternal health, perinatal conditions, and nutritional deficiencies persist as enduring causes of death. The prevalence of mental health issues is also increasing, significantly impacting lives.

While there has been an increase in life expectancy, health problems among the elderly have also risen simultaneously. The process of urbanization has resulted in an increase in the population living in slums, with severely compromised health and sanitary conditions. These factors have contributed to the strain on the existing primary healthcare system, making it increasingly challenging to provide adequate health services.

[7] A.B.Hiramani (2016), Ibid,p.1

The existing difficulties in primary healthcare delivery services are compounded by emerging issues that require urgent attention and contribute to the complexity and strain faced by the primary healthcare system in the nation. To address these challenges, there is a pressing need for comprehensive and practical approaches. Strengthening preventive measures, early detection, and treatment for non-communicable diseases is essential. Equally crucial is enhancing maternal and child health services to tackle communicable diseases effectively. Prioritizing mental health support and creating programmes for the elderly are imperative to address emerging health concerns. Also, investments in primary healthcare infrastructure, human resources, and technology are crucial to improve service delivery. Emphasizinghealth education and awareness campaigns can empower individuals to take charge of their health and promote a healthier lifestyle.

Addressing the persisting health concerns and emerging issues requires a concerted effort from policymakers, healthcare professionals, and communities. By adopting proactive and comprehensive strategies, India can strive towards a more responsive primary healthcare system that effectively addresses the health requirements of its population.

The contemporary healthcare system in Mizoram took shape through a collaborative approach involving both the British government and Christian missionaries. Before 1894, the region lacked access to a modern and scientifically oriented healthcare infrastructure[8]. After the 2nd British Campaign against the Mizo (1889–1890), the first Medical Officer was appointed in Mizoram. Soon after, Health Care Services began to grow in Mizoram[9]. The Synod Hospital ,Durtlang in Aizawl, was established in 1928 by the Welsh Presbyterian Church missionaries, under the guidance of Dr John Williams. then named the 'Welsh Mission Hospital' by the Welsh Presbyterian Christian missionaries.

[8]http://shodhganga.inflibnet.ac.in/bitstream/10603/60708/10/10_chapter percent202.pdf viewed on 19.10.2018.

[9] B.Thangdailova (2003) '*Modernization of Health Care Services in Mizoram*' in R.N Prasad and A.K.Aggarwal (ed.). Modernization of the Mizo Society, Mittal Publications, New Delhi, p. 28

Subsequently, the Welsh missionaries proceeded to establish healthcare facilities in remote and distant areas of the region. These healthcare facilities are regarded a foundations of basic healthcare in Mizoram. These health Centres were manned by missionaries and trained nurses. In the wake of the insurgency of 1966 and the ensuing turbulence, the rural health Centres had to be shut down ultimately since it was no longer practicable to operate them.

The introduction of modern medicine and the healthcare system by the Baptist Mission in the southern part of the state had a deep impact on the region's healthcare landscape. The first dispensary, which opened in 1923, marked the beginning of a significant transformation in healthcare accessibility for the local population. Over time, this dispensary evolved into a full-fledged hospital located in Serkawn, Lunglei. Between the years 1919 and 1977, the hospital was staffed by as many as nine nurses and one European doctor, who worked tirelessly to provide healthcare services to the residents of the area. Their dedication and commitment to establishing the groundwork for enhancing the well-being of the community and a robust healthcare system in Mizoram. In 1952, recognizing the importance of training healthcare professionals, a nursing school was established at Serkawn. This school offered courses in Auxiliary Nursing and Midwifery, which played a crucial role in producing skilled healthcare workers to meet the growing demands of the region. Graduates of this nursing school went on to serve in various healthcare facilities, spreading their knowledge and expertise throughout Mizoram.

These healthcare units, both the hospital and the nursing school, have played a vital role in providing sustained healthcare and training to countless individuals in the region. Their legacy continues to hold a prominent place in Mizoram's healthcare delivery system, contributing to the overall well-being of the community. Through the years, these institutions have adapted and expanded their services to cater to the evolving healthcare requirements of the populace, ensuring that the people of Mizoram receive quality medical care and attention.

The establishment of Aizawl Civil Hospital in 1894 holds a historical significance as it marks the pioneering steps towards formal medical facilities in the region of Mizoram. Back then, known as the 'Kuli Dispensary,' it commenced its

humble journey from a modest tent, serving as a vital medical facility primarily for coolies during its nascent days. This modest beginning of Aizawl Civil Hospital laid the groundwork for a transformative healthcare landscape that would evolve over time to fulfill the healthcare requirements of the expanding and diverse population in Mizoram.A few years later, it was remodelled into a dispensary with a capacity of eight beds, and it quickly advanced to a capacity of 12 beds[10]. During the period between 1896 and 1920, significant efforts were made to improve healthcare accessibility in the remote and far-flung areas of Mizoram. As a result, seven dispensaries were established across the region during this time. These dispensaries assumed a vital role in delivering basic medical care as well as treatments to the local communities, bridging the healthcare gap in these remote areas.

By the time India gained independence in 1947, the healthcare infrastructure in Mizoram had seen considerable development. Aizawl, the capital city, and Lunglei, a major town in the southern part, both had their own hospitals. These hospitals marked a significant advancement in the healthcare facilities available in the region. They were adequately staffed with physicians and nurses, enabling them to offer additional comprehensive healthcare services to the community. The presence of physicians and nurses in these hospitals was instrumental in improving the healthcare outcomes in Mizoram. Physicians brought medical expertise and knowledge, while nurses provided essential care, support, and assistance to patients. Their combined efforts contributed to better diagnosis, treatment, and overall patient care, leading to improved physical health and overall well-being of the residents.

Having dedicated hospitals in Aizawl and Lunglei allowed the people in these regions to access specialized medical treatments and services that were previously limited or unavailable. Additionally, these hospitals served as training grounds for aspiring healthcare professionals, including doctors and nurses, who later spread their skills and knowledge to other parts of the state, positively impacting healthcare delivery in remote areas. The establishment of these hospitals and dispensaries not only provided essential healthcare services but also brought about awareness of

[10]K.L. Remsanga and John Zohmingliana (2018),'*Progress of Civil Hospital, Aizawl*' in 19th Annual Magazine of MGDA,p.47

modern medicine and health practices in Mizoram. As the healthcare infrastructure continued to develop and evolve, it laid the groundwork for further advancements in the healthcare sector in the years to come.

Overall, the period between 1896 and 1947 marked a significant phase in Mizoram's healthcare history, with the setting up of multiple dispensaries and the establishment of hospitals in key locations. These milestones played a crucial part in moulding the healthcare scenario of the state and ensuring that the people of Mizoram had improved access to medical care, setting the stage for further progress in healthcare delivery in the future. Before becoming an independent Union Territory, Mizoram was a district under Assam, and a Public Physician oversaw health care delivery[11].

Following its designation as a Union Territory on January 21, 1972, in Mizoram, the establishment of the Health Department was a critical step in providing essential healthcare services to the population. However, tracing the exact evolution of the Health Department through time poses a considerable challenge due to the absence of comprehensive historical accounts. Despite the lack of detailed records, it is evident that the Health Department was one of the earliest departments to be founded in the newly formed state. This reflects the significance and priority given to healthcare services for the well-being of the people. The establishment of the Health Department laid the foundation for a structured approach to address the health needs of the region, ensuring access to medical care, preventive measures, and health promotion. As Mizoram progressed as a state, the Health Department continued to evolve, adapting to the changing healthcare demands and advancements in medical practices. Over the years, it has played a critical role in shaping public health policies, implementing healthcare programmes, and coordinating medical services across the state.

The progress of primary healthcare infrastructure in Mizoram has been notable over the years. The creation of Primary Health Centres (PHCs) and Sub-Centres has been a concerted effort to provide essential healthcare services even in the most remote regions of the state. By 1966, at least three PHCs were already set up, and this number

[11] Thangdailova(2003),op.cit,p 34.

increased to four units in 1972. This initial phase laid the groundwork for a more expansive healthcare network in the years to come.

As Mizoram achieved statehood in 1986, significant strides were made in healthcare infrastructure. At that time, 51 PHCs and 314 Secondary Healthcare Facilities (SHCs) were operational. This expansion was a testament to the state's commitment to enhancing primary and secondary healthcare services. Over the next three decades, the state continued its focus on strengthening primary healthcare. By 2013, there were 64 facilities for primary care and community health, marking a substantial increase in the quantity of PHCs. In addition, there were 367 Sub-health Centres, indicating the reach of healthcare services to various communities, including those in remote areas. Presently, there are 379 sub-Centres, 170 clinics, 9 community health Centres, 61 primary health Centres that are dispersed throughout the state.

The rise in the number of PHCs and Sub-Centres highlights the government's efforts to enhance the availability of healthcare services for its population. These facilities act as vital points of contact for individuals seeking medical attention, providing essential preventive, curative, and promotive health services. By strategically establishing primary healthcare facilities across the state, Mizoram has taken significant steps to address health challenges at the community level. These Centres assume a vital role in the timely identification and handling of diseases, reducing the burden on higher-level healthcare facilities.

The continuous expansion and strengthening of primary healthcare infrastructure demonstrate Mizoram's commitment to providing quality healthcare for all its citizens. As the state continues to evolve, its focus on primary healthcare services remains a cornerstone in ensuring the well-being of its diverse and growing population. Primary Health Care encompasses within its scope a variety of health services comprising Reproductive and Child Health (RCH) interventions including an array of women and child-related services, combined into primary healthcare – and gives importance to essential nutrition, routine immunization, hygiene, sanitation, communicable diseases as also non-communicable diseases including diabetes, high blood pressure, and cancers, etc.,

Review of Literature

In the context of developing countries, healthcare faces multifaceted challenges encompassing a range of interconnected issues. The intricate balance between combatting communicable diseases like malaria and tuberculosis while addressing the increasing weight of chronic diseases like diabetes and cardiovascular disorders highlights the complicated nature of resource distribution. Simultaneously, efforts to promote healthy practices and habits through education about sanitation, nutrition, and vaccination, coupled with the encouragement of positive behaviours like regular exercise, play a pivotal role in shaping community health and fostering broader societal advancement. However, the provision of affordable yet quality healthcare remains a persistent struggle, hindered by financial constraints that limit accessibility for a significant portion of the population. This conundrum demands innovative solutions to ensure equitable healthcare delivery. Additionally, the ripple effects of diseases extend beyond health, casting a shadow over families' financial stability and obstructing economic growth due to the burden of medical expenses. The confluence of these challenges accentuates the imperative for comprehensive strategies that address both health and economic aspects to uplift healthcare systems in developing nations.

The significance of public health, primary healthcare, and related subjects cannot be understated, particularly for scholars and writers delving into the arena of government administration. Consequently, an abundance of resources dedicated to health and healthcare is readily accessible. However, it is noteworthy that systematic studies on the functioning and operational mechanisms of Sub Health Centres in Mizoram are evidently scarce, despite the presence of perhaps a few studies touching on specific aspects of healthcare within the region. The following literature listed below were chosen based on their relevance to the current study and have been reviewed to aid in the study:

S.P.Ranga Rao (1993)[12] in *Administration of Primary Health Centres in India* explores existing healthcare services existing in rural India. The book analyses the

[12] S.P.Ranga Rao (1993) , '*Administration of Primary Health Centres in India*' , Mittal Publications, New Delhi.

problems of basic healthcare in India and emphasizes the necessity for quick remedial action. The book examines the past development of basic healthcare facilities in India. The author provides a description of the evident truth that even though many rural health units have been established in the country in rapid succession, the human and material resources provided for centres are inadequate for these units to afford quality primary health care. Too much importance has been given to the curative aspect of healthcare while the preventive and promotive aspect of health has been neglected, which, if it is an actuality, opposes the fundamental tenets of primary healthcare. The author also observes the disregard for traditional drugs and simple but effective age-old household remedies with minimum side effects and undue preference for costly allopathic drugs. He also discusses the lack of participation of the rural people and rural local bodies in rural health programmes.

R.N.Prasad and A.Agarwal (eds)(2003)[13] in the collected works they edited *Modernisation of the Mizo Society*, containing 19 articles, concerned with numerous facets of modernisation and development of the Mizo Society, touches upon challenges and issues concerning the Mizo Society. Development planning in urban and rural areas, local government perspectives on urban and rural, environmental problems, agriculture development and also a healthcare-related work entitled *"Modernisation of Health Care Services in Mizoram"* authored by *B. Thangdailova* has been included. The work offers a comprehensive exposition on the conceptualization and evolution of healthcare services, policy and planning and other significant aspects influencing the Health and healthcare delivery system in the state. It also covers the Primary Healthcare Concept in the Mizoram context and provides a novel perspective on healthcare and its delivery system.

S.Gupta (2009)[14] in her *A Textbook of Health Care Management* provides an overview of the Indian healthcare system from a global perspective and stresses the need for leadership in implementing reforms in the overall consequences and health care delivery services. Gupta details the overall ideologies and methods of administration and organization to bring about optimum effectiveness in healthcare

[13] R.N. Prasad and A.K.Agarwal (2003) (ed.), '*Modernization of the Mizo Society*' , Mittal Publications, New Delhi.
[14] Sumedha Gupta (2009), '*A text book of Health Care Management*', New Delhi,Kalyani Publishers.

delivery. Significance has also been attributed to the value of ICT use in medical treatment, other important challenges and problems in the health care system as well as important and practical remedial measures to face these challenges in a meaningful and effective manner.

Saxena (2010)[15] in *Health Policy and Reforms-Governance in Primary Health Care* explores a variety of elements of healthcare throughout rural India including key issues of governance which impact performance and outcomes, particularly with the changes in policy brought in by new economic policy and subsequent reforms. In addition, the book discusses a variety of topics that have an impact on health policy and implementation and also sheds light on persistent and emerging challenges encountered by the public healthcare domain, especially in rural regions, and offers an understanding of the causes behind their emergence and why they continue to be significant impediments to the effective delivery of healthcare.

Ahmand et al.(eds) (2013)[16] within the revised literary work entitled *An Institutional Perspective on the Provision of Primary Health Care in India and Bangladesh* containing research articles on India and Bangladesh's Primary Health Care describes the role of healthcare providers and overall functions of healthcare at the primary level. The work touches upon various issues concerning the decentralisation of healthcare functions, financial issues and functions of healthcare providers and related concerns in people's participation and social mobilisation. The PPP (public-private partnership) model of healthcare delivery and service supply is emphasized as a potential answer to many of the issues raised. The situation is that PPP is in a nascent phase, but there are strong instances which give an indication that beneficiaries are keen to pay for important health services, which includes access to life-saving and vital drugs which raises the expectation that some ground-breaking and novel approach to PPP may flourish if handled in an appropriate manner. The study also proposes expanding the roles of local leadership and non-governmental organizations (NGOs) as key conduits in efficient healthcare delivery.

[15] K.B.Saxena(2010), '*Health Policy and Reforms-Governance in Primary Healthcare*', New Delhi, Aakar Books.
[16] Alia Ahmad. et al.(eds.)(2013), '*An Institutional Perspective on Provision of Primary Health Care in India and Bangladesh*', New Delhi, Academic Foundation.

A.B.Hiramani(2016) [17] in his seminal work entitled *Health Education in Primary Health Care*, the writer emphasizes the utmost significance of foundational healthcare within the context of a traditional rural Indian setting, where illiteracy, shortage, poverty, ignorance, and an outdated mentality based on myths and prejudices are commonplace. This study is based on empirical evidence gathered through field research to establish correlations between multifaceted dimensions pertaining to the well-being of the populace. These encompass the dissemination of knowledge pertaining to well-being, the availability of pertinent scholastic materials, the occurrence of sexually transmitted infections, and the preservation of sanitary habitation circumstances. Hiramani also suggests several approaches to bring forth solutions to health problems by judicious involvement of health practitioners.

R P Gupta (2016) [18] in *Health Care Reforms in India-Making up for Lost Decades* gives in-depth details of the healthcare system in India, chronicling its birth and growth, role and responsibilities, accomplishments, and the Way Forward. Gupta presents a comprehensive breakdown of the health system in India, Canada, the USA, and the UK and highlights financial resources available for healthcare in India, in relation to Gross Domestic Product (GDP) which is significantly lesser when compared with other developing countries. The study also touches upon the policies and politics of the healthcare sector, lingering and emerging challenges, and the related reforms in India as well as the influence of foreign policies and economics on the health sector. In spite of countless reforms in the healthcare system, India is still constrained by infrastructural gaps and fiscal limitations. While the challenges are formidable the author presents his ideas in a positive and optimistic light and declares that India has the opportunity and capacity for introducing novelties in the health sector and policies to meet the challenges and move forward towards a more sustainable healthcare delivery system.

Shaila Parveen(2017)[19] in *Health Care Services in India* explores India's healthcare system. The book delves into various aspects, providing readers with

[17] A.B. Hiramani (2016),op.cit.
[18] Rajendra Pratap Gupta (2016), '*Health Care Reforms in India-Making up for the Lost Decades*' ,New Delhi, Reed Elsevier India Pvt. Ltd.
,[19] Shaila Parveen(2017), 'Health Care Services in India',Bharati Prakashan,Varanasi

valuable insights into the historical development and the current state of healthcare in the country. Dr. Parveen begins by tracing the roots of India's healthcare practices, shedding light on the traditional healing methods and the influence of diverse cultures on medical traditions. This historical context sets the stage for understanding the contemporary healthcare landscape in India. The book examines the challenges faced by the healthcare sector, such as accessibility and affordability of medical services. Dr Parveen addresses the stark urban-rural divide, which has led to unequal distribution of healthcare facilities, leaving many remote areas underserved. A notable aspect of the book is its in-depth analysis of the impact of modern medicine and technological advancements on healthcare services in India. The rise of private healthcare providers, medical tourism, and the adoption of telemedicine and digital health solutions are also explored.

K.S. Rao (2017) [20] in her book *Do We Care? India's Health Care System* gives a thought-provoking and insightful account of past health programmes and policies in India, analyzing improvements in public healthcare brought about by changes implemented throughout the past decade and beyond. The author is a former union secretary of health and so could provide an insider's account of the actual formulation and implementation of India's approach to health in the present times. Her past experience in this regard shed some light on why health cannot be considered an important part of the developmental story of India in the past. She goes on to reveal that India's health budget had always been smaller even when compared to other poorer countries, going to the extent of calling it 'stingy' Nearly sixty million individuals annually fall into poverty because of medical bills they pay out of pocket. Rao ardently proposes enlarging the health budget and also wiser and more optimal usage of expertise, and proactive and upright management. She stresses that health needs to be India's top priority for India's development story to remain something more than self-applauding.

[20] K.S Rao (2017), '*Do we care? India's Health Care System*', New Delhi, Oxford University Press.

K.Kalyan Chakravarthy and T.Sreenivas (2017)[21] in their research work *Primary Healthcare Management in India* analyse the management functions in PHCs in Guntur District, Andhra Pradesh, India along with the opinion survey of doctors and administrative staff regarding various management responsibilities and try to suggest practical and operational measures to improve their functioning. The book, divided into seven chapters, deals with various aspects of the Primary Health Care-its role, basic concepts, historical perspective, different levels of healthcare, and the current healthcare scenario in India including E-health. The book also brings out the perceptions of the patients and beneficiaries including the impact of managerial effectiveness and patient satisfaction, with the aim of suggesting measures for improvement and strengthening the prevailing system.

Dr Bratati Banerjee(2018)[22]in her book *Primary Health Care in Nursing* pertains to the notion of fundamental healthcare and the potential role of Community Health Nursing in enhancing its accessibility within a community milieu. This book details the fundamental procedures and techniques necessary to deliver primary health care for various diseases. Details on ways to identify and address frequent community health challenges, and also where to go for help, have been provided. The book also covers programmes in service delivery aimed at providing Primary Health Care to specific populations, such as pregnant and breastfeeding mothers, newborns, children, adolescents, women of reproductive age, the elderly, and others. In short, the book is a sincere attempt to discuss the concepts, strategies, and functions of nursing in Primary Health Care in a simple and lucid way.

Vijay Govindarajan and Ravi Ramamurti(2018)[23], have proposed the use of reverse innovation for conveying first-class health care at affordable charges in the USA. Drawing on past practices and knowledge applied by health units in India, in their book *Reverse Innovation in Health Care: How to make Value-Based Delivery Work* based on extensive, empirical research, has provided valuable insight into healthcare innovations through substituting distribution founded on size and service

[21] K.Kalyan Chakravarthy and T.Sreenivas(2017), "*Primary Healthcare Management in India*", New Delhi,Mittal Publications.
[22] Dr Bratati Banerjee(2018), "*Primary Health Care in Nursing"*,New Delhi,AITBS Publishers.
[23] Vijay Govindarajan and Ravi Ramamurti(2018), "*Reverse Innovation in Health Care : How to make Value-Based Delivery Work*", Boston, Massachusetts, Harvard Business Review Press.

fee with competition founded on worth, and calculated by patient outcomes for every dollar paid. The two authors, experts in the phenomenon of reverse innovation, in their work, disclose tetrad paths utilized by healthcare organizations in the USA to use the Indian methods to attack the spiralling cost of healthcare. Through real-life examples and accounts of healthcare experts who have actually practised these ideas, this book shows how value-based distribution of health services can be practised in reality in the United States. This book reveals that reverse innovation can work in health care, as it has worked in other industries.

Maintaining Health in Primary Care: Guidelines for Wellness in the 21st Century by Jennifer R. Jamison (2019) [24] is a comprehensive and practical guide that offers invaluable insights into promoting wellness and preventive care in primary healthcare settings. This book serves as an essential resource for healthcare professionals and practitioners seeking to adopt a proactive approach to patient care. Jamison presents a well-researched and up-to-date compilation of guidelines that are relevant to the current healthcare landscape. She addresses a diverse array of subjects, encompassing nutrition, physical exercise, mental well-being, and chronic disease management, providing evidence-based recommendations to enhance patient outcomes. Each chapter is organized systematically, making it easy to navigate and refer to specific topics as needed. What sets "Maintaining Health in Primary Care" apart is its focus on preventive measures and health promotion, as opposed to merely treating illnesses. Jamison emphasizes the significance of empowering patients to assume control over their well-being, nurturing a cooperative and patient-centered approach to healthcare delivery. Furthermore, the book includes practical tools and resources that can be readily implemented in primary care settings. From wellness checklists to patient education materials, these resources add value and utility to the book.

The Healthcare Gamechangers: 12 Innovators Around the World Reimagining Healthcare by Ashwin Naik (2019)[25] is a thought-provoking book that showcases the

[24] Jennifer R. Jamison (2019), *'Maintaining Health in Primary Care: Guidelines for Wellness in the 21st Century',*Elsevier.

[25] Ashwin Naik (2019), *'The Healthcare Gamechangers: 12 Innovators Around the World Reimagining Healthcare',*New Delhi,Bookswagon.

remarkable contributions of 12 innovators in the healthcare industry. Through this book, Naik highlights the transformative impact of these visionaries in redefining and reshaping healthcare across the globe. Each chapter introduces readers to a different healthcare innovator, providing in-depth insights into their groundbreaking ideas and initiatives. From cutting-edge medical technologies to novel approaches in healthcare delivery, the book covers a diverse range of innovations that have the potential to revolutionize the way healthcare is practised and experienced. Moreover, "The Healthcare Gamechangers" encourages readers to envision a future where healthcare is more accessible, affordable, and patient-centric. It sparks conversations around the need for disruptive ideas and creative solutions to address the complex and evolving healthcare needs of our society. The book's global perspective is another highlight, as it features innovators from different regions and cultures, emphasizing the universal character of the healthcare obstacles we encounter and the joint endeavours necessary to solve them.

J.Kishore's(2022)[26] *National Health Programmes of India* is a comprehensive and up-to-date guide that provides valuable insights into the various healthcare initiatives and programmes implemented by the Indian government. The 14th edition of this book continues to be a reliable and informative resource for healthcare professionals, policymakers, and students within the realm of public health. The book covers a wide range of national health programmes, each designed to address specific health challenges faced by the diverse population of India. J. Kishore meticulously presents the objectives, strategies, and outcomes of these programmes, offering readers a clear understanding of their impact on the healthcare landscape. A notable advantage of the book lies in its comprehensive examination of the progress and challenges faced by these initiatives over the years. J. Kishore provides a critical assessment of the successes and limitations of each programme, aiding readers in identifying areas that require improvement.

P.M.Arathi(2022)[27] in his book *Public Health in India: Policy Shifts and Trends* delves into the dynamic landscape of public health policies and trends in India.

[26] J.Kishore (2022), *'National Health Programme of India',*New Delhi, Century Publications.
[27] P.M.Arathi(2022),*"Public Health in India: Policy Shifts and Trends",* New Delhi Sage Publications.

Authored by a prominent public health expert, it offers a nuanced analysis of the progression of public health endeavours in the nation and illuminates the changing frameworks in public health and their influence on the health results of the populace. It delves into the obstacles confronted by the Indian healthcare system and offers acumens into the policy decisions that have shaped the public health agenda over the years. With meticulous research and data-driven analysis, the author highlights the successes and shortcomings of various initiatives in public health, including immunization schemes, efforts for mother and child well-being, and management strategies for illnesses. The book critically examines the role of government policies, healthcare infrastructure, and community engagement in influencing public health outcomes.

Sunder Lal Vikas(2022)[28] in his book *Public Health Management, Principles and Practise* explores a wide range of topics, covering subjects such as the root causes of management problems, performance improvement, international health organizations, and public health emergencies, with a focus on controlling the COVID-19 epidemic and India's reaction. In essence, it provides a solid foundation for understanding issues with healthcare administration. This book is a helpful resource for students pursuing undergraduate and graduate degrees in community medicine, preventive and social medicine, and public health. It serves as a clear guidebook for people working in the fields of health and hospital administration, health informatics, officials in health ministries at various administrative levels, and everyone else involved in influencing the direction of the healthcare industry.

The book titled *Healthcare Economics Management* authored by G.D. Mogli(2023)[29], offers a perceptive examination of the complex interplay between the healthcare and economics domains. The book is structured into three distinct sections, each comprehensively exploring a diverse array of key subjects. Section 1 establishes a strong framework by examining the breadth of health economics, the significance of healthcare economic research, and several facets of health reforms and patient care.

[28] Sunder Lal Vikas(2022), *"Public Health Management, Principles and Practices"*, New Delhi,CBS Publishers.

[29] G.D Mogli(2023), *"Healthcare Economics Management"*,New Delhi, CBS Publishers and Distributors.

Section 2 provides an in-depth examination of the healthcare delivery system, including a comprehensive evaluation of hospital services, encompassing accident and emergency care as well as specialist medical disciplines. Section 3 of this resource serves as a vital tool for nursing practitioners, highlighting the importance of nursing records and documentation in the field. In the book, Mogli elucidates novel approaches aimed at mitigating expenses in the healthcare sector, while also tackling the mounting apprehension around the escalation of healthcare expenditures. This book provides a substantial amount of material, including a dictionary of health economics terminology and medical acronyms, making it an essential resource for anyone who aims to acquire a full conception of healthcare economic management.

Hacking Health: The Only Book You'll Ever Need to Live Your Healthiest Life authored by Mukesh Bansal(2023)[30], presents a novel viewpoint on successfully traversing the complex landscape of health and wellness information inside contemporary society. By incorporating a combination of personal anecdotes and up-to-date scientific research, Bansal effectively elucidates the intricacies of health while simultaneously refuting commonly held misconceptions. The book provides a thorough overview of a wide range of topics, including diet, exercise, sleep, immunity, mental health, ageing, and longevity. The text adeptly combines traditional knowledge with contemporary scientific principles, enabling readers to make well-informed decisions that promote a better lifestyle. Bansal's comprehensive approach, including a whole range of perspectives, serves as a catalyst for individuals to delve into the inherent capabilities of their own physicality. This method highlights the fundamental role of optimal well-being in fostering a gratifying existence.

In addition to the above authored and edited books, the following papers and articles published in the Journals have also been reviewed:

Arun K Agarwal (2008)[31] in *Strengthening Health Care System in India: Is Privatisation the Sole Solution?* notes that the increasing importance of public-private partnership (PPP) is a direct outcome of the public health system's poor execution.

[30] Mukesh Bansal(2023), "Hacking Health: The Only Book You'll Ever Need to Live Your Healthiest Life",New Delhi,Penquin Viking.

[31] Arun K Agarwal (2008), "Strengthening Health Care System in India: Is Privatisation the Only Answer", *Indian Journal of Community Medicine* ,33(2).

While PPP does not always lead to privatization, it is possible that privatization will occur under the current circumstances. More than 80 percent of curative treatment in India is sought out by individuals in the private health sector, which raises individual out-of-pocket expenditures. The biggest problem with privatization is that it exacerbates economic inequality, and is obviously not what a welfare state aims to achieve. As an alternative to privatizing healthcare, the author proposes allocating scarce public resources where they will do the best for the most people, with special attention paid to the most disadvantaged members of society.

N Bayapa Reddy et al. (2012)[32] in their article entitled *Study on the Availability of Physical Infrastructure and Manpower Facilities in Sub-Centre of Chittoor District of Andhra Pradesh* through cross-sectional, empirical study attempts to evaluate the present availability of physical and supportive infrastructure, facilities, as well as the staff at healthcare facilities operating in Andhra Pradesh's Chittoor district. 34 Sub Health Centres were chosen for the research employing a pre-established regimen of study, employing questions that had predetermined response options. The survey found a shortage of health professionals and necessary health instruments in residential facilities, with only 26.4 percent of facilities meeting Indian Public Health standards. Additionally, only 20.6 percent of facilities have the required health instruments.

H.T Pandve et al. (2013) [33] in their work entitled *Primary Health Care in India: Evolution and Challenges* emphasized basic healthcare as a key element of the nation's healthcare sector. A nation's primary healthcare system is essential because it acts as the initial location of interaction for individuals seeking medical treatment. It also is the most frequently utilized healthcare service in any nation. The article presents an examination of the growth and progress of primary healthcare in India, including its origin, evolution, and performance. It highlights the importance of physical infrastructure and related achievements in healthcare delivery since the country gained independence from foreign rule. The article also discusses the Bhore Committee

[32] N Bayapa Reddy et al. (20112), "*Study on the availability of physical infrastructure and manpower facilities in sub-Centres of Chittoor district of Andhra Pradesh*", Indian Journal of Public Health, Volume 56,Issue No 4,290-292.
[33] H.T.Pandve et al. (2013), *"*Primary Health Care in India: Evolution and Challenges*", International Journal of Health System and Disaster management*,Vol-1,Issue-3.

Report, which prioritized primary healthcare and laid the foundation for health policies in the country. Primary Healthcare in India faces various constraints that hinder its ability to provide services effectively. Additionally, new and emerging challenges are compounding the existing problems and challenges faced by the system. The current physical infrastructure, support services, facilities, supplies, and manpower are struggling to cope with the numerous challenges they face, leading to an overburdened system.

Anne Mills et al. (2013)[34] in the article titled *An Assessment of the Quality of Primary Health Care in India* have endeavoured to construct a comprehensive evaluation of the advancements witnessed within the domain of primary healthcare in the context of India through the utilization of both qualitative and quantitative data, thereby lending a multifaceted perspective to the assessment. This was achieved through a nationwide survey of primary health Centres, which provided representative data for analysis. The purpose of this assessment is to analyze the topographical differences and examine if there is a connection between healthcare utilization and death rates. Additionally, it aims to determine the contributing variables for improved quality of healthcare, with a particular emphasis on organizational performance. The study concluded that the quality score had an average of 52 percent. However, there were significant differences in quality scores among different localities, districts, and states. The article suggests that there is a correlation between the designation of states as poor performing by the government and lower standards of healthcare, as well as higher levels of disparity. The government's basic criteria are typically not met by the healthcare facilities in India. This could be a contributing factor to why individuals are seeking healthcare services from private providers, resulting in higher out-of-pocket expenses.

Soumyadeep Bhaumik's(2014)[35] *Health and Beyond: Strategies for a Better India-Concept Paper on Primary Healthcare in India* is a paper outlining a conceptual framework that proposes a better plan for the primary healthcare model in India. The

[34] Anne Mills et al.(2013), "*An Assessment of the Quality of Primary Health Care in India*", Economic and Political Weekly,Vol.48, Issue No.19,11 May,2013.
[35] Soumyadeep Bhaumik (2014), "*Health and Beyond...Strategies for a Better India: Concept paper on Primary health care in India*", Journal of Family Medicine and Primary Care,2014 Apr-Jun;3(2):94-97.

article explores various problems in primary healthcare administration and proposes a three-way "approaches-technology, responsibility, and the ink-blot strategy"-to be embraced for a concerted response to several glitches in primary healthcare setting. This article is an opening study on an innovative model that has yet to be improved and applied on a larger scale through all participants before it can be applied.

Rajiv Yeravdekar et al. (2014)[36] in their article *Strengthening of Primary Health Care: Key to Deliver Inclusive Health Care* identify two reasons for infirmity as poverty and inequality. Due to these two reasons, in many parts of the country, there is incomplete access to good quality healthcare service because people cannot afford it. Inequality in health is against the principle behind the Right to Life. India faces significant challenges in the area of public health, particularly with regard to transmissible illnesses and infant and maternal mortality rates. These challenges are particularly acute in some of the country's poorer regions, where the health situation is even worse than in Africa's sub-Saharan region. Diarrhoea illnesses are identified as the primary factors contributing to early childhood mortality in India. Inclusion in a nation's healthcare system can be encouraged by offering "necessary medical services" by ensuring that healthcare is affordable and attainable for everyone in society. To achieve essential healthcare, it is necessary to increase the health budget while using public funds in a prudent manner. This can be done by developing the skills and capacity of healthcare workers through practical training and enhancing the delivery mechanism of the entire health sector.

Krishna D Rao et al. (2015)[37] in their article *Urban Health in India: Many Challenges, Few Solutions* relate the present-day situation of India's health systems to the country's tendency of escalating urbanization. It offers a comprehensive outlook on the overall condition of the populace's well-being at a national level. The efficacy of the nation's healthcare infrastructure in adequately addressing the needs of its substantial urban populace is imperative for the attainment of comprehensive healthcare access and the enhancement of the country's health metrics. The expansion

[36] R.Yeravdekar, et al. (2014), "Strengthening of Primary Health Care: Key to Deliver Inclusive Health Care*", Indian Journal Of Public Health*,Vol-57,Issue-2.
[37] K.D.Rao et al. (2015), "Urban Health in India: Many Challenges, Few Solutions", *The Lancet Global Health*,Vol-3,No.12.

of healthcare facilities and personnel in urban areas has been significant. However, a simple increase in these resources does not necessarily guarantee accessibility to healthcare services. The article suggests that there is a requirement for further study and focus on policy-related issues. The National Health Mission (NHM) stands as a significant endeavour by the government, signifying its commitment to addressing the healthcare needs of the nation, with the National Urban Health Mission being one of its components. The current situation in Urban India requires an urgent increase in the health budget and its efficient allocation to effectively address the challenges at hand.

Khursheed Hussain Dar(2015)[38]in his work *Utilization of the Services of the Primary Health Centres in India Empirical Study* makes an effort to evaluate the factors and reasons that contribute to the facilities given by primary health Centres in rural regions in order to obtain the healthcare services that are offered by the health sector. The research paper's conclusions suggest that in the past, there was a greater preference for private medical practitioners; however, due to expensive treatment options available in the private medical industry, individuals have increasingly turned to the medical facilities offered by government-run healthcare units located in the villages. This is due to the reality that public healthcare units tend to be found in more remote locations.

M.Chokshi et al (2016)[39] in their article *Health System in India* attempt to bring attention to the critical role that healthcare systems and health policies play in determining the ways by which individuals are provided with healthcare services and how those services affect overall outcomes and health indices. This article provides a picture of the healthcare system and structure of the country, chronicling its growth and evaluating its function and performance, while putting focus on childcare, in particular the health of newborn babies. It has been mentioned the Bhore Report was published in 1946 and the reasons why it is considered to be a milestone report in the records of India's medical history. It has been detailed with regard to the Bhore Report and its recommendations on how the Public Healthcare Infrastructure in India now stands. The authors recommend that in order to create a healthier India, health policies

[38] Khursheed Hussain Dar (2015), "*Utilization of the services of the Primary Health Centres in India-An Empirical Study*", Journal of Health, Medicine and Nursing,Vol.16,2015.
[39] M.Chokshi, et al.(2016), "Health Systems in India", in *Journal of Perinatology*,36 (Suppl 3).

may be place a greater emphasis on improving capacities and skills, as well as increasing the number of resources that are allocated and making the most efficient use of those resources.

Rajan Rushender et. al. (2016)[40] in their paper *A Study of Effective Utilization of Healthcare Services Provided by Primary Health Centres and Sub-Centres in Rural Tamil Nadu* consider the extent to which primary and secondary healthcare amenities are used and the characteristics of amenities that are used in healthcare facilities. The field survey for this study was carried out at Sub Health Centres operating in a district in Tamil Nadu having a populace of 45183 through the use of a pre-designed questionnaire. The sample size was 3220. The study concluded that the main functions of the Sub Health Centres were more preventive and promotive in nature whereas curative services were poor in the Sub Health Centres the treatment for serious illnesses and diseases, intranatal care, and investigative services were underfunded and existed in name only.

P.Kumar (2016)[41]'s article *How to Strengthen Primary Health Care* investigates the significance of Primary Health Care (PHC) and why it deserves dedicated resources and proper staffing at the local clinic level for a more sustainable primary health care founded on balanced and coherent values to realise the objectives of giving out higher quality services with the principle of affordability and equitable distribution while at the same time guaranteeing financial farsightedness. The article also recommends a Model for healthcare delivery at the initial point of interaction with the population, and it provides a wide review of present difficulties and challenges in Primary Health Care. Innovative and useful suggestions for developing and executing healthcare programmes, and reduction of expenditure with quality care have always been the solutions to many existing problems in healthcare delivery. These solutions are easy to talk about but difficult and complex issues that need proper planning and management. Many research findings and official reports have shown substantial wastage of resources, supplies, support facilities, and healthcare equipment due to a

[40] Rajan Rushender et . al(2016), "*A study of effective utilization of health care services provided by primary health centres and sub-centres in rural Tamil Nadu*", International Journal of Community Medicine and Public Health, Vol 3,No.5,2016

[41] P.Kumar (2016), " How to strengthen Primary Health Care", *Journal of Family Medicine and Primary Care*, Vol-5,Issue-3.

lack of proper planning and foresight. Prevention and promotion, nontransmissible disease management, and prompt referral are all areas that may need more attention.

Deshpande Suniel et. al. (2017)[42] in their article *Healthcare Challenges in Rural India* attempt to determine the overall status of the healthcare scenario comprising of the healthcare infrastructure, availability of healthcare facilities and services and ascertain the healthcare status of the populace in a rural setting. The article was based on primary research undertaken in a real-life rural backdrop at village Kavnal, Taluka-Igatpuri, about 100 kms away from Mumbai. The major finding of the research paper was that local healthcare was almost non-evident in this village, there was not a single medical store in the village and there was a complete dependency on healthcare services and facilities in far-off towns or districts leading to severe hardships for the village population.

Bashar and Goel (2017)[43]in their article *Are Our Sub-Centres Equipped Enough to Provide Primary Health Care to the Community: A Study to Explore the Gaps in Workforce and Infrastructure in the Sub-Centres from North India* explores the gaps in healthcare Delivery at the primary level availability of the workforce, existing infrastructure, supplies, and equipment in the sub-centres in Ambala District of Haryana. A total of 30 sub-centres were selected for conducting a field survey. The cross-sectional study exposed a huge deficit in manpower, supplies, medicines, facilities, and equipment so much so that the sub-centres would not carry out basic healthcare services to the population. Therefore, in order to serve as essential health units and deliver primary healthcare in the truest meaning of the term, Sub Health Centres may be supplied with the requisite physical infrastructure, personnel, and essential, appropriate supplies as specified by the Indian Public Health Standards.

Sheikh Mohd Saleem et al.(2017)[44]in their article *Sub-Centre Health Profiling and Healthcare Delivery Services in Rural Community in Northern India* profiled the

[42] Deshpande Suniel et al. (2017), "*Healthcare Challenges in Rural India",* Indian Journal of Public Health Research and Development, Volume 8, Issue No 4,735-742.
[43] M.A.Bashar and Sonu Goel (2017), "*Are our Sub Centres equipped enough to provide primary health care to the community: A study to explore the gaps in workforce and infrastructure in the subcentres from North India*", Journal of Family Medicine and Primary Care,Apr-Jun;6(2):208-210
[44] Sheikh Mohd Saleem et al(2017), "*Sub-Centre health profiling and health care delivery services in rural community of northern India*", Annals of Tropical Medicine and Public Health, Volume 10,Issue 2,436-439.

Sub-Centres and healthcare delivery services based on secondary data collected from sub-Centres situated on the steep terrains of Jammu & Kashmir state, 25 kilometers from the capital city. Analysis of the data reveals that the neighbourhood's rural population found the services to be accessible and of an acceptable level, which appears to have contributed to the community's improved health.

Chandrakant Lahariya (2019)[45] in *More, Better, Faster &Sustained: Strengthen Primary Health Care to Advance Universal Health Coverage* tries to answer the important question of how India can have a sturdier primary healthcare delivery system and how Health and Wellness Centres can amplify the rate at which India's PHC System is being strengthened. The article discusses how strengthening of PHC is essential for advancing Unified Health Care (UHC). The UHC has been at the forefront of international health discussions for the past fifteen years, and revitalizing dialogue on health policy at the international level has emerged to strengthen and bolster local healthcare systems, which are the foundation of UHC.

There are several sources of literature on primary health care and its delivery services, as seen by the reviews of the books and articles mentioned above. However, neither the operation of Sub Health Centres in Mizoram nor the appropriate management of basic healthcare in the state has been the subject of any comprehensive research. As a result, it is hoped the current work on the operation of the Sub Health Centre will provide some resources in this area, possibly filling a knowledge gap, and improving the body of knowledge on health administration in Mizoram, with a specific emphasis on primary healthcare.

Statement of the Problem

It has always been challenging to effectively administer health care in India, particularly at the primary level and at Sub Health Centres. The evident cause is due to poverty and extreme inequality that exists across regions and societies coupled with extreme demographic diversity. The Indian Culture is exceedingly varied and is a blend of a great number of cultures requiring varied solutions for varied issues and

[45] Chandrakant Lahariya (2019), "*More, better, faster &sustained: Strengthen Primary Health care to advance Universal Health Coverage*", Indian Journal of Medical Research, Volume 149, Issue :4,433-436.

challenges. The present position of India's Primary Health care (PHC) is bleak due to a variety of reasons. One of the reasons why the maternal and infant mortality rate continues to be higher than the desired level can be attributed to low rates of routine immunization coverage and institutional delivery. India's healthcare system has often been underfunded, too inflexible, and resources too insufficient to efficiently manage the health needs of its 1.28 billion people. Also, there is a huge gap in the availability of trained manpower compared with the large population that needs healthcare at the primary level. The available manpower and material resources are either overworked or underutilised which is concerning and requires to be remedied.

Mizoram is a small and relatively young state in the Indian Union. The inception of primary healthcare institutions in Mizoram commenced on a modest scale in 1966. By 1972, when Mizoram was designated as a Union Territory, four health units, comprising Community Health Centres and primary care Centres had been set up and operational in the region. The quantity of primary healthcare facilities has exhibited a gradual yet consistent growth to accommodate the escalating demand for healthcare provisions within the state.

The commencement and continuity of healthcare services in Mizoram were initiated through collaborative endeavours between the state apparatus and British Christian missionaries. The early stages of growth and development were characterized by a sluggish and unpredictable pace. However, these two entities have collaborated and reinforced each other's endeavours to effect significant transformations in the healthcare system of the region. The commendable contribution of the early British missionaries in the advancement of contemporary healthcare in Mizoram is noteworthy. Initially, dispensaries and rural health Centres served as the primary healthcare facilities, subsequently being elevated to district hospitals, primary healthcare facilities, community health establishments, sub-health centres, and clinics. These sub-centres and Clinics started offering basic, contemporary healthcare to people even in remote rural areas only after Mizoram became a state. Mizoram has 26 Rural Development (RD) Blocks and these development blocks are facilitated by PHC or CHC for giving the public access to basic healthcare. In Mizoram, where healthcare services are expanding rapidly, there is a considerable urban bias, particularly in the

state's capital district of Aizawl. In the case of Sub Centres/Clinics, nearly one-fourth(132/549) of the institutions are concentrated in the district.

Mizoram attained statehood in 1978 and by then, substantial priority had been given to increasing the number of healthcare units at all levels. By the end of 2013, 64 primary care/community health centres and 367 additional clinics had been established. Presently, the state boasts a total network of ten (10) Community Health Centres, sixty-one (61) Primary Health Centres, and an impressive three hundred seventy-nine (379) Sub Health Centres, alongside a notable count of 170 Sub Centre Clinics, in operation throughout the state. Sub Health Centre Clinics have proliferated at a rapid pace across the state. Sub Centre Level Health Clinics are exclusively found in the state of Mizoram.

Primary healthcare assumes essential function within a state's comprehensive health infrastructure, serving as the initial connection point between individuals and the healthcare system. For Mizoram, the Sub Health Centres hold fundamental components of primary healthcare delivery, providing essential medical services to the local communities. However, despite their significance, there has been a lack of systematic study and examination of these institutions, their features, roles, and functioning in the context of Mizoram.

Conducting a systematic study of Sub Health Centres in Mizoram becomes not only desirable but necessary to understand how these institutions operate and how they contribute to the healthcare system at the community level. It is necessary to highlight both the strengths and weaknesses inherent in these healthcare units, as well as the obstacles they face in effectively serving the population. By undertaking this study, a comprehensive framework of Sub Health Centres' operations in Mizoram would be established. This framework would cover various aspects, including their infrastructure, staffing, availability of medical resources, community engagement, and service provision. The findings of the study would contribute to a deeper understanding of the health infrastructure's ground realities and enable policymakers to make informed decisions for further strengthening and improving primary healthcare services in the state. Moreover, the study would highlight the difficulties and obstacles encountered by Sub Health Centres in Mizoram. These obstacles could include challenges related to geographical remoteness, limited resources, inadequate

staffing, and cultural factors. Identifying and understanding these challenges are essential steps toward addressing them effectively.

Finally, the study would recommend remedial measures and strategies to enhance the smoother functioning of Sub Health Centres in Mizoram. This could involve measures such as targeted resource allocation, capacity building for healthcare professionals, community engagement and awareness programmes, and the integration of traditional healing practices with modern medicine.

Thus, a systematic study of Sub Health Centres in Mizoram is not only desirable but imperative to strengthen the foundation of primary healthcare in the state. It would offer valuable insights into their operations, challenges, and potential solutions, enabling policymakers and healthcare authorities to create a more resilient and responsive healthcare system that meets the needs of the local population effectively.

Scope of the Study

The study hopes to provide a conceptual overview of functioning of Health Sub Centres in Mizoram. Efforts will also be made to study the growth and development of primary healthcare delivery system in Mizoram.. Special focus will be given to the administration of primary healthcare delivery services in Aizawl district and Lunglei district. The study will further highlight the problems and challenges concerning primary healthcare delivery services in Aizawl and Lunglei and attempt to provide suggestions arising out of the study.The selection of these two districts is based on their representation of the northern and southern regions of Mizoram. Aizawl, the state capital and headquarters and the first urban centre in the state, located in the northern part of the state, is chosen to represent the northern region. On the other hand, Lunglei District, which serves as the headquarters for the southern region and the second urban centre next to Aizawl, is selected as it represents "South Mizoram," the largest district in terms of size, and is also the seat of the High-Powered Committee[46]. The study also delves into the challenges faced by healthcare providers in these areas and explores potential solutions to address these issues effectively.

[46] See Appendix 1, District Map of Mizoram.

Moreover, the research explores important indicators and specific characteristics of Sub Health Centres and Clinics, offering insights into their functioning. By examining representative samples in Aizawl and Lunglei districts, the study hopes to shed light on similar situations in other districts across Mizoram, providing a comprehensive understanding of the state's healthcare challenges.

As the backbone of the healthcare system, with 379 Sub Health Centres/ Health and Wellness Centres and 170 Health Clinics operational in Mizoram, these facilities play a vital role in providing essential healthcare services. Understanding their operations and challenges is essential for ensuring accessible and quality healthcare for the population.

By recognizing and outlining the difficulties and obstacles experienced in running these healthcare facilities, the research hopes to contribute to the identification of crucial areas for improvement and to suggest potential corrective measures and solutions to enhance the efficiency and effectiveness of Sub Health Centres and Clinics.

The scope of this study extends beyond individual healthcare facilities, encompassing the fundamental building blocks of primary healthcare in Mizoram. The findings of this study is expected to be instrumental for policymakers, healthcare administrators, and professionals in formulating evidence-based strategies and policies to strengthen the healthcare delivery system across the state. By providing insights and evidence-based recommendations, the research aims to pave the way for a more resilient, accessible, and patient-centric healthcare system that caters to the needs of the people in Mizoram effectively.

Objectives of the Study

The study aims to focus mainly on the functioning of Sub Health Centres in Mizoram. Consequently, the following are the research's explicit objectives:

1. to investigate the role and functioning of sub-health Centres in Mizoram.
2. to study the different aspects of availability and standards of services of Sub Health Centres in Mizoram.
3. to study the different aspects of satisfaction of the people regarding the functioning of Sub Health Centres in Mizoram.

4. to identify the issues and difficulties facing Sub Health Centres and to recommend remedial measures for more efficient functioning Sub Health Centres in Mizoram.

Research Questions

In light of the objectives of this study, the following research questions have been discerned for finding satisfactory answers:

1. What are the functions and role of Sub Centres in the state of Mizoram?

2. What are the different aspects of availability and standards of services of Sub Health Centres in Mizoram?

3. What are the different aspects of satisfaction of the people regarding the functioning of Sub Health Centres in Mizoram?

4. What are the problems, challenges, and remedial measures for more efficient functioning Sub Health Centres in Mizoram?

Methodology

Research Design

The research methodology for this study is characterized by a cross-sectional and descriptive design. It employs a mixed-method approach, combining qualitative and quantitative techniques to gain a comprehensive understanding of Sub Health Centres in Mizoram. This approach enables the gathering of data from multiple sources at a single point in time, allowing for a systematic assessment of the current state of primary healthcare facilities. The study was conducted by carrying out field research in Aizawl and Lunglei Districts of Mizoram, where selected sub-centres were studied and examined. Data was collected through administering semi-structured questionnaires, conducting field observations, and carrying out personal interviews. This on-site field study provides a holistic view of the operations, challenges, and successes of these primary healthcare facilities within the specific geographical context.

The mixed method involving both quantitative and qualitative nature of the research design enabled a thorough exploration of the intricacies involved in health sub-centre operations. Through open-ended interviews, in-depth discussions, and on-

the-field observations, valuable insights are obtained, going beyond mere numbers and statistics, and allowing for a nuanced understanding of the various factors influencing the provision of healthcare services at the primary level. The study not only explored the current state but also the underlying reasons behind the successes and challenges faced by Sub Health Centres. By employing both quantitative and qualitative methods, the research aims to uncover the intricate dynamics of healthcare provision, taking into account the perspectives of beneficiaries, healthcare professionals, and government officials involved in the process. Furthermore, the cross-sectional nature of the study provides an opportunity to compare and contrast different Sub Health Centres and identify common patterns and themes. This contributes to a broader understanding of the primary healthcare system in Mizoram, offering valuable insights for evidence-based policy-making and strategic interventions.

A Beneficiary Satisfaction survey was also conducted among patients to gauge their satisfaction level with Sub Centres' operational efficiency and services. A custom-designed metric called the Beneficiaries' Satisfaction Index (BSI) was utilised. This index was based on six questions where beneficiaries were requested to evaluate their satisfaction across six distinct aspects of healthcare delivery, each rated on a 0 to 100 scale, with 0 being the lowest satisfaction and 100 being the highest. The BSI was calculated as follows:

BSI = {[(Average score of six questions/6) - 1] / 5} * 100

In this study, indexing was also done to determine the relative importance of each factor in relation to the total scores and assigned ranks accordingly. To achieve this, the Relative Importance Index (RII) was utilised, a tool designed to assess the relative significance of different factors in influencing an overall outcome, specifically in our case, patient satisfaction. The RII is computed using the following formula:

$RII = \sum (W / (A * N))$

Here, W represents the weight assigned by each respondent, ranging from 1 to 5. A is a constant set at 5, which serves as the highest possible weight for all calculations, and N denotes the total number of respondents.

The chosen research design is well-suited for a comprehensive study of the various dimensions of Sub Health Centres in Mizoram. It allows for a thorough evaluation of their functioning, the challenges they face, and opportunities for

improvement. By employing a rigorous and systematic approach, this study aims to offer valuable suggestions for bolstering the primary healthcare infrastructure and improving the overall well-being of the population in Mizoram.

Sampling Methodology:

The research employed a combination of convenience sampling method and purposive non-probability sampling method to select 38 Sub Health Centres in the Aizawl and Lunglei districts. This method proves advantageous for this study since all sub-centres adhere to the same Indian Public Health Standards, leading to a consistent structure of operation and services. Therefore, the sub-centres are not expected to demonstrate significant diversity in their operations.

The study was carried out by employing a sample size of 200 individuals, consisting of 116 beneficiaries from Aizawl and 84 from Lunglei, in addition to 104 healthcare professionals, Health and Wellness Officers, and other Officials, with 55 from Aizawl and 49 from Lunglei. The paragraphs within the relevant chapters have presented the qualitative data regarding the perspectives of health officials, representing it through tables which have been analysed.

Convenience sampling and purposive sampling offer practicality and cost-effectiveness in data collection, allowing for efficient gathering of data from easily accessible Sub Health Centres. Since all Sub Health Centres operate within the same standards, the research aims to gain valuable insights into the collective functioning of primary healthcare facilities in Mizoram. This approach facilitates a comprehensive understanding of the challenges and successes shared by these Centres in meeting the healthcare needs of the local population.

With these sampling methods, the study could focus on the core aspects relevant to sub-centres performance, providing meaningful data for evidence-based policy-making and interventions to enhance the overall healthcare delivery system in Mizoram.

Data Source:

The research employs primary and secondary data sources combined. The acquisition of primary data is accomplished through two sets of semi-structured questionnaires, tailored for beneficiaries and government officials, respectively.

Additionally, in-person encounters and interviews are conducted with beneficiaries, healthcare professionals, and government officials to obtain in-depth perspectives and experiences related to Sub Health Centres.

Secondary data sources include published materials such as books, articles, journals, and publications, which offer comprehensive and scholarly coverage of relevant subjects. Unpublished materials, such as official documents issued by International Organizations and relevant government departments, provide valuable data on policies and regulations. Web resources serve as additional secondary sources, providing real-time data, updated statistics, and contemporary perspectives.

Questionnaire Design:

The questionnaire design involved two sets of questionnaires, one tailored for beneficiaries and another for officials. Both sets followed the same format to ensure consistency and facilitate comparative analysis between the perspectives of beneficiaries and officials. Both sets of questionnaires were designed and constructed to gather comprehensive insights into the functioning and perception of Sub Health Centres in Mizoram. Divided into two parts, the questionnaire covered a wide range of essential aspects.

Part 1: The first part of the questionnaire focused on critical aspects related to the Sub Health Centres. It included sections on sub-centre location, manpower availability, infrastructure, support facilities availability, cleanliness, and service availability. Participants were asked to provide detailed responses regarding their experiences and observations in these areas.

Moreover, the questionnaire for the beneficiaries incorporated a satisfaction survey, allowing beneficiaries to express their level of contentment pertaining to the services offered by the Sub Health Centres. Furthermore, both sets of respondents were encouraged to share their valuable suggestions for improvement, offering practical insights to enhance the overall functioning of these primary healthcare facilities.

Part 2: The second part of the questionnaire centered on gathering the socio-demographic data of the respondents. Participants were asked to provide information related to their age, gender, educational background, occupation, and other relevant socio-demographic factors. This data was crucial for understanding the diverse

perspectives and experiences of the respondents, contributing to a comprehensive analysis of Sub Health Centres' operations in the context of the broader population they serve.

Collection of Data:

Data collection played an essential role in this research, involving a comprehensive and on-site field study at selected Sub Health Centres & Health Clinics in the Aizawl and Lunglei districts of Mizoram. Questionnaires were designed to capture a wide diverse array of information concerning the operation, challenges, and effectiveness of sub-Centres. Questionnaires were administered to beneficiaries, healthcare professionals, and government officials, providing diverse perspectives on the primary healthcare facilities.

In addition to questionnaires, in-person encounters and interviews with stakeholders were conducted. These personal interactions allowed for a deeper understanding of the participants' experiences, perceptions, and suggestions. Engaging stakeholders directly in this manner facilitated active participation and enriched the data collection process.

By adopting this mixed method approach, it was possible to obtain triangulate data from multiple sources, validating and corroborating the findings. The combination of questionnaires and interviews ensured a comprehensive data collection process, capturing both quantitative and qualitative insights into the functioning of Sub Health Centres.

Data Analysis:

The collected data were analysed utilizing simple statistical tools, including calculating percentages, averages, and descriptive statistics, using software such as MS Excel and SPSS. Through data analysis, it was possible to identify common patterns, trends, and challenges across the Sub Health Centres. These quantitative findings were complemented by the qualitative data obtained from interviews, allowing for a deeper exploration of the reasons behind the observed trends.

The data was carefully examined to ensure its validity and consistency. The findings were then arranged and reported in a lucid and structured fashion, aiming to offer a comprehensive grasp of the research findings. The objective was to generate

evidence-based insights that could guide policies and initiatives for enhancing the operation and effectiveness of Sub Health Centres in Mizoram.

Chapterization

The present study has seven chapters including an introductory chapter as well as a conclusion.

Chapter I : Introduction

The first chapter of the study encompasses various aspects such as an introduction to health and primary healthcare, with a specific emphasis on Sub Health Centres serving as the foundation of primary healthcare. Additionally, the chapter delves into the implications of primary healthcare, a review of relevant literature sources, a statement of the problem, the overall scope of the study, objectives, and research questions. The chapter also provides an overview of the study's methodology and how the subsequent chapters will be structured.

Chapter II : Health Administration: A Conceptual Study

Chapter II delves into the notions and ideologies of Primary Health Care as viewed through the lenses of global entities, as well as national and regional governing bodies. It also focuses on the core principles of Primary Healthcare, the Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), placing specific emphasis on health indicators. The significance of healthcare's structural and financial considerations is also highlighted. Classical approaches and health models are also discussed in the chapter.

Chapter III : Health Administration in India - A Historical Perspective.

Chapter III delves into the historical perspective of Health Administration in India, offering a comprehensive exploration of various epochs. The focus is on ancient India, where traditional health practices during the Buddhist period are examined, shedding light on the health management systems prevalent during that era. Moving forward, the chapter traverses through the medieval period, unearthing the tapestry of healthcare practices and systems that characterized the time, and revealing the societal approaches towards health and well-being. The chapter also offers a comprehensive examination of the implementation of modern healthcare practices by the colonial powers, exploring their impact on the indigenous health systems and their subsequent

integration into the Indian healthcare landscape. This historical analysis serves as a foundation for understanding the roots and evolution of health administration in India.

The Chapter also presents an examination of the existing status of the healthcare system, contemporary challenges and achievements within the domain of health management. By critically evaluating the current state of healthcare in India, the chapter facilitates a contextual understanding of the factors influencing the nation's health administration policies and practices. This exploration of the historical and current aspects of health administration in India lays the groundwork for a deeper understanding of the subsequent chapters in the research.

Chapter IV: Mizoram -A Profile.

Chapter IV discusses the general profile of Mizoram State touching upon its physical geography and location, a brief summary of the political and administrative history of Mizoram, the status of Communication and Transport services and facilities available within the state, Socio-economic features of the state, the general demography, health status and growth of Healthcare in Mizoram, institutional mechanism of healthcare service, programme of healthcare at the federal, state, and locally, as well as relevant healthcare problems unique to Mizoram -including the existing challenges and problems faced with respect to healthcare delivery system.

Chapter V : Working of Sub Health Centres in Mizoram-Issues and Challenges.

Chapter V discusses the functions and role played by Sub Health Centres in Mizoram. In addition, this chapter discusses the historical development and progression of health establishments and systems within the state, with a specific focus on Aizawl and Lunglei Districts. A detailed account of the various functions and responsibilities of Sub Health Centres is presented, shedding light on their significant contributions to the healthcare landscape. Chapter V also delves into the transformation brought about by the Ayushman Bharat: A Programme for Health and Wellness Centres across the country. This transformative initiative has led to an expansion of primary healthcare functions, with a special emphasis on addressing Non-Communicable Diseases (NCDs). This paradigm shift marks a departure from the selective functions

traditionally performed by Sub Health Centres, as they now assume a more holistic and proactive approach to tackling the health challenges faced by the populace.

Chapter VI: Results and Discussion

Chapter VI provides an analysis of the fieldwork conducted to gather firsthand information about selected Sub Health Centres in Mizoram. The research focuses on multiple dimensions, including demographic data of respondents, human resources, physical facilities, services provided, level of service quality, public perceptions, and satisfaction, along with the roles and activities of the Sub Health Centres and Accredited Social Health Activists (ASHAs). By examining these aspects, the study aims to gain a holistic view of healthcare facilities.

The chapter discusses the characteristics and composition of the population served by the Sub Health Centres through demographic data, offering insights into local healthcare needs. The roles of healthcare professionals, such as doctors, paramedical staff, and support personnel, are analyzed to understand the availability and efficiency of service delivery. The evaluation of physical facilities and infrastructure sheds light on the availability of medical amenities and their accessibility to the community. Additionally, the study assesses the range and quality of healthcare services offered, along with public satisfaction levels and perceptions of the healthcare facilities. It also explores the involvement and impact of ASHAs in service delivery, contributing to a comprehensive understanding of the Sub Health Centres' functioning and effectiveness.

Chapter VII : Conclusion

Chapter VII is divided into two parts. The first part provides a brief overview of the preceding chapters, encompassing Chapters I, II, III, and IV. It presents a synopsis of the progression of the study, including the theoretical framework, methodology, data analysis, and key discoveries from each chapter. This section presents a comprehensive understanding of the research process that culminated in the results and findings of the study.

The second part focuses on the presentation of the research findings. It discusses the research's outcomes, drawing insights from the data collected and analyzed in earlier stages. Additionally, this section provides recommendations for enhancing the operation of Sub Health Centres and clinics in Mizoram. These

recommendations are informed by the study results and aim to address the challenges identified, while also capitalizing on potential opportunities for improvement.

In this chapter, an examination of the concepts and theoretical aspects associated with the operation of sub-health centres is presented. The chapter encompasses a literature review, a statement of the problem, the significance of the research topic, and the objectives and intended outcomes of the study. In addition, this chapter offers an outline of the research questions that will guide the study. The chapter also delves into the research methodology, explaining the chosen approach and providing justification for the selection. Overall, this chapter serves to lay the foundation for the research endeavour through its elucidation of the essential context, study objectives, and methodology. It provides a strategic blueprint for the subsequent investigation.

CHAPTER II

HEALTH ADMINISTRATION: A CONCEPTUAL STUDY

The previous chapter provides the fundamental concepts within the domain of health and its complexities. The chapter explores the significance and reasoning behind undertaking the research, drawing from a wide array of literary sources.It articulates the research inquiries and outlines the specific scope and objectives of the study, setting the foundation for the present study. The research questions posed and the methodologies utilized are also discussed, elucidating the approach taken in this study. Finally, the chapter establishes the conceptual framework that supports the entire study.

Health administration's theoretical basis and underlying concepts are covered in this present chapter from international, national, and state viewpoints. The concept of healthcare, the health system, sector and agencies of the healthcare system, levels of healthcare, and evolving perceptions of health are also discussed in this chapter, such as Comprehensive Healthcare, Basic Health Services, Primary Health Care and its basic concept, Elements of Primary Healthcare, Philosophies of Primary Health Care, Essential mechanisms of Primary Healthcare.

The chapter covers various topics related to primary healthcare, including the elements and principles of primary healthcare, essential components, extended elements in the 21st century, and their connection in accordance with the MDGs and health-related indicators. The chapter also examines the contribution of primary healthcare towards the achievement of Sustainable Development Goals, alongside metrics pertaining to health. The chapter concludes by presenting a brief summary of the Indian healthcare system's management of the Covid-19 outbreak.

Health: The Fundamental Idea

Health is a core concept essential to leading a full and vibrant life. It is often something we take for granted when we have it, but once it is lost, strips us of the very quintessence of life itself. The age-old adage "Health is Wealth" goes beyond being a mere saying; it holds profound truth. Good health surpasses the importance of material wealth, as it forms the bedrock of a satisfying and enriching existence. True happiness

is intricately tied to an individual's well-being, and the attainment of genuine happiness is contingent upon the state of one's health. It is a psychological phenomenon deeply intertwined with the absence of physical ailments. Improving one's overall quality of life requires striking a balance between physical and mental health. When we are in good health, we are equipped to pursue our goals, relish experiences, and embrace life's opportunities. However, when faced with illness or health challenges, the very essence of our being is affected, and life's pursuits can be hindered. Health serves as a powerful enabler, allowing us to savour the joys of existence and make the most of each moment.

Good health enables us to be productive members of society, contributing to our families, communities, and the world at large. It empowers us to cultivate meaningful relationships, nurture our passions, and explore our potential. It is through sound health that we can pursue our dreams, chase ambitions, and lead fulfilling lives. In essence, health is not a fleeting luxury; it is the very fabric of life. The saying "Health is Wealth" encompasses the profound reality that without good health, material possessions lose their lustre, and life's materials become inconsequential. It is the foundation upon which everything else is built.

The perception of health is subjective and can be influenced by a multitude of factors. Individuals' understanding of health can be shaped by their unique circumstances, including age, gender, educational background, life experiences, socioeconomic status, and cultural heritage. The idea of health has been interpreted differently as a result of the diversity of viewpoints. The World Health Organization (WHO) provides a comprehensive definition of health that goes beyond the mere absence of illness or physical impairments. According to WHO, health is not just absence of disease; instead, it represents a condition characterized by overall well-being, encompassing positive aspects in one's mental, emotional, and social dimensions. It emphasizes the interconnectedness of these elements in shaping an individual's health.

From this broader perspective, the concept of health encompasses mental and emotional well- being. Mental health refers to a person's cognitive and emotional state, encompassing aspects like resilience, coping mechanisms, and emotional regulation.

Emotional health pertains to one's ability to manage and express emotions in a constructive manner. Moreover, the social aspect of health highlightsthe significance of maintaining meaningful social connections, relationships, and support systems. A sense of belonging and social integration can contribute significantlyto an individual's overall health and happiness. The WHO's definition acknowledges that health is influenced by the complex interplay of individual, societal, and environmental factors. Moreover, the evolving nature of health is closely tied to the dynamic nature of life itself. As individuals progress through different life stages and face diverse challenges and opportunities, their perception of health may evolve. What constitutes good health for a young adult may differ from that of a senior citizen, as their priorities and experiences change over time.

The overall concept of health is multifaceted, dynamic, and deeply personal. It is a state characterized by comprehensive well-being including physical, mental, and social dimensions. Acknowledging and respecting the diverse interpretations of health can lead to more comprehensive and person-centeredapproaches to promoting well-being and supporting individuals in their pursuit of a fulfilling and healthy life.

WHO constitution explains health as encompassing optimal physical, mental, and social well-being, rather than merely the absence of illness or any form of impairment[47]. The WHO idea and concept of health was formulated subsequent to the conclusion of World War II, at a time when the notion of health was regarded to be closely related to the concept of peace and has become a traditional and conventional definition of health. This traditional view of health has been widely recognized as the standard definition. On the other hand, the wellness perspective of health highlights not only physical capabilities but also personal and social resources.

Not everyone agrees with the United Nations' concept of health, on the ground that according to this definition being healthy excludes having any disease [48] .It has also been proposed that in today's world, especially for the elderly, health can be achieved by active management of sickness rather than merely avoiding it. Instead of

[47] (WHO Definition of Health 1948) World Health Organization: The Constitution of the World Health Organization. *WHO Chronicle* **1**:29, 1944.
[48] https://www.statnews.com/2019/07/17/change-definition-health/ viewed on 01.06.2021

focusing just on disease-free or symptom-free, we require a definition of health that is both wider and more inclusive so that it may apply to a greater number of people. A description of well-being may be applicable to a large portion of a nation's citizens, regardless of their age group. The majority of nations around the globe, both in the industrialized and emerging parts of the world, are aging[49]. It has been argued that identifying "complete" well-being solely as the lack of illness is insufficient for individuals who live through persistent and chronic illnesses, as it fails to account for the various new and conventional methods of managing such conditions. Older adults can now experience both having a disease and feeling healthy, as these two conditions are no longer mutually exclusive"[50].

The greatest possible level of health is a fundamental entitlement for all individuals, as per the constitution of the World Health Organization (WHO), regardless of their race, faith, views on politics, financial situation, or status in society. Health has, thus, been declared a fundamental human right, implying, thereby that each individual states are responsible for the health of all the citizens[51]. Governments globally are committed to enhancing and broadening their healthcare provisions to cater to the welfare of their populace. Presently, healthcare services have been subject to criticism due to their (a) predominant focus on urban areas, (b) primarily curative approach, and (c) limited accessibility to a minority of the populace[52]. The necessity to offeraccessible and inexpensive healthcare services to the whole population, rather than just particular sectors of it, is one of the most serious concerns that nations with developed economies, as well as developing ones, must deal with. By the year 2000 A.D., it is crucial to guarantee that everyone has a sufficient degree of health. This can only be achieved through the implementation of a primary healthcare programme.

It is difficult to pick a widely recognized definition of health that is in addition to the traditional definition offered by the UNO. This is due to the fact that numerous

[49] Ibid
[50] Ibid
[51] The Constitution was adopted by the International Health Conference held in New York from 19 Juneto 22 July 1946, signed on 22 July 1946 by the representatives of 61 States and entered into force on 7 April 1948.
[52] J.M,Last(ed),'A Dictionary of Epidemiology',Oxford University Press,New York.

perspectives on comprehending and describing the notion of health have evolved throughout the years. To acquire a more thorough comprehension of health and the myriad of ideas that comprise it, it can be simpler to investigate the many methods of health that are now in use. The concepts of the "medical model," "holistic model," and "wellness model" pertain to the three basic approaches that are now being employed in the medical field[53].

(1) The Medical Model: Throughout the 20th century, North America widely embraced the medical model. The concept of the "medical model" was first used by psychiatrist R. D. Laing in his seminal publication "The Politics of the Family and Other Essays" (1971) to delineate the standardized protocols employed in the education and training of physicians. The medical model encompasses patient complaints, medical history, physical examinations, and, if necessary, additional tests. It involves making a diagnosis, planning treatment, and providing a prognosis both with and without intervention. The medical model of health centers on identifying the biological causes of diseases and employing physical or chemical interventions for treatment. It relies on systematic observation, description, and differentiation using accepted medical techniques such as examinations, tests, and symptom descriptions to recognize diseases. However, the medical model overlooks the patient's social and psychological circumstances.

The concept serves as a perspective through which the human body is observed as a machine that, when it breaks down, may be fixed. The approach prioritizes the treatment of distinct physical ailments and does not place significant emphasis on addressing mental or social issues. The focus of the approach to health is primarily curative rather than preventive, with an emphasis on addressing health issues after they have arisen rather than taking measures to prevent them from occurring in the first place. Consequently, health is evaluated solely based on its non-existence, whereby it is characterized as the lack of illness and the existence of elevated levels of functionality. The medical model of health emerged during the 18th Century Enlightenment, a period when traditional natural sciences gained prominence in academia and medical practice. The notion that science could cure all illnesses became

[53] www.medicine.uottawa.ca/sim/data/Health_Definitions_e.htm viewed on 01.05.2021

a fundamental aspect of modern medicine. This perspective on health is straightforward, as it allows health to be evaluated by ascertaining the existence or lack of a medical condition.

The conventional approach to measuring health has often focused solely on the absence of disease or illness. This viewpoint sees health as a state. where there is no apparent physical or mental ailment, and individuals are free from any signs of sickness. This narrow definition perceives health as a static condition, where the absence of disease is considered the primary indicator of well-being.

According to the medical paradigm of population health, a healthy population is one whose members experience high levels of physical well-being. As per this theoretical framework, a thriving society is characterized by the continuous functioning of its diverse systems, including but not limited to the economic, legal, and governmental systems. The medical model has been criticized for its narrow and reductionist nature since it does not consider the intricate complexities and diverse experiences of individuals. It tends to perceive health as a fixed and unchanging state, disregarding the dynamic nature of the human condition. R. D. Laing, the originator of the term, shared similar criticisms, particularly concerning the medical model's limited and oversimplified approach when dealing with mentaldisorders.

(2) The *holistic model* of health is illustrated by the 1946 WHO definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"[54]. The holistic model of health is a comprehensive approach that considers the entirety of an individual and their connection with the environment. It revolves around the concept that health goes beyond merely the absence of illness and encompasses a dynamic and multi-faceted state of well-being. This well-being involves many factors, including aspects of social, environmental, social, mental, emotional, and spiritual kinds.

[54] Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946 (it entered into force on 7 April 1948)

The holistic approach to health considers the whole person, encompassing the mind, body, emotions, and more so, the spirit. Its premise is that every component of the human body is interconnected to one another and even if one part is not working properly, the functioning of the whole body is affected. According to this model, optimal health can only be achieved by striking the proper balance in life. The model believes in using all treatment options available, even modern medications. The holistic model of healthcare represents a paradigm shift in the way we approach and understand well-being. It is a comprehensive and all-encompassing approach that goes beyond simply treating symptoms with medications. Instead, it seeks to explore the deeper root causes of health issues, taking into account every aspect of a person's life. By examining factors such as diet, lifestyle, personal challenges, and stress, the holistic model aims to uncover the underlying imbalances that contribute to health problems.

The medical model of health, which concentrates on the biological cause of disease and the physical or chemical intervention to treat it, is distinct from the holistic model of health. Central to the holistic approach is the belief that true healing and well-being are not achieved solely through medical interventions, but also through the presence of unconditional love and support. The acknowledgment of the significance of emotional and social dimensions of health underlines the interdependence of mental, physical, and spiritual elements. In the holistic view, every individual is seen as a unique and complex whole, where physical, mental, emotional, and spiritual dimensions are intertwined.

Embracing a wide range of healing modalities, the holistic model acknowledges that conventional treatments may not always be sufficient to address the complexities of human health. Therefore, it incorporates various alternative and complementary therapies such as self-care practices, acupuncture, massage therapy, psychotherapy, counselling, chiropractic care, and homeopathy. These non-conventional approaches are valued for their ability to address not only physical symptoms but also emotional and psychological imbalances.

While the holistic model is not officially endorsed by the World Health Organization, its impact on healthcare practices and philosophies is significant. Expanding the understanding of well-being beyond the absence of disease has

illuminated the concept of "positive" well-being, where individuals experience not just the absence of illness but also a sense of thriving and fulfilment.

When applied on a population level, the holistic model offers a broader perspective on community well-being. By aggregating relevant individual indicators and documenting metrics related to the collective health of a community, it provides insights into the overall health and resilience of a population.

The holistic model of healthcare is a transformative approach that recognizes the complexity and interconnectedness of human health. By considering the entirety of an individual's life and promoting a sense of empowerment and self-care, it opens new avenues for promoting well-being and fostering a state of balance, harmony, and optimal health for individuals and communities alike.

(3) The Wellness Model: The third model is the wellness model, formulated due to the implementation of the initiative initiated by the World Health Organization. In 1984, the World Health Organization (WHO) introduced a discussion document that proposed a re-evaluation of the concept of health. The publication suggested a shift from perceiving health as a static state to viewing it as a dynamic process or driving factor. The integration of this enhancement was noted within the context of the Ottawa Charter for Health Promotion, which was officially ratified in 1986. According to the given definition, health is the degree to which a person or a community can achieve their goals and meet their needs, while also adapting to and managing their surroundings. Health, according to the World Health Organization, goes beyond simply being free from disease; it is a wealth of opportunities for people to live their best lives. It encompasses physical, social, and personal resources that contribute to overall well-being and quality of life[55]. Several definitions of health share a common perspective that regards it as a measure of resilience. One such definition describes health as the capacity of people, households, communities, and societies to manage and recuperate from significant stress or peril[56]. When defining population health, one possible consideration is the population's resilience in the face of shocks like economic downturns or natural disasters.

---

[55] Health Promotion: *A discussion document on the concept and principles of health promotion*, Copenhagen, 9-13th July,WHO, 1984.

[56] Vingilis & Sarkella, *Social Indicators Research* 1997;40:159

The wellness model of health acknowledges that wellness is not a stagnant or immutable condition; instead, it is an ongoing and dynamic process that necessitates self-awareness, self-responsibility, and self-care.

The wellness model of health draws inspiration from diverse movements and traditions that prioritize holistic and natural approaches to well-being, that also includes Ayurveda, Traditional Chinese Medicine, Yoga, Meditation, Naturopathy, and more. Through their influential roles and literary contributions, notable figures like Jack Travis, Bill Hettler, Don Ardell, Halbert Dunn, and others have played a substantial role in shaping the concept of wellness. In the 21st century, the wellness model has garnered increased popularity and acknowledgment as an increasing number of individuals aspire to enhance their quality of life and prevent chronic illnesses.

Various wellness models conceptualize wellness dimensions differently, with some including six, eight, or more dimensions. However, most models agree on the core dimensions of wellness:

1. Physical: This dimension centers around nurturing a healthy body through exercise, nutrition, sleep, hygiene, and avoiding harmful habits like smoking or substance abuse.
2. Mental: This dimension entails interacting with the world actively via education, creativity, and problem-solving. It also encompasses maintaining a positive mindset, coping with stress, and seeking support when needed.
3. Emotional: This dimension focuses on recognizing, embracing, and communicating our own emotions while also comprehending the emotions of others. Effective management of emotions, building resilience, and fostering self-esteem are vital aspects of emotional wellness.
4. Spiritual: This dimension entails exploring the pursuit of a deeper significance and meaning in life. Developing a personal belief system or worldview that guides values and actions contributes to spiritual wellness.
5. Social: This dimension revolves around establishing meaningful connections and engagement with others and our communities. Social wellness involves cultivating healthy relationships, effective communication, and respecting diversity.

6. Environmental: This dimension highlights the beneficial connections between human activities, decisions, and well-being and the health of the environment. It entails protecting natural resources, reducing waste, and promoting sustainability.

Contrasts between the Wellness and Holistic Model

At first glance, wellness and holistic may appear to share similar characteristics. However, upon closer examination, there are discernible differences that set these two models apart.

1. Individual Focus vs. Interconnectedness: The wellness paradigm focuses significant emphasis on the proactive engagement of individuals in the pursuit and sustenance of their own optimal health. It encourages personal responsibility, self-awareness, and self-care. On the other hand, the holistic model views individuals as interconnected with their environment and the larger systems they are a part of. It recognizes that health is influenced not only by individual choices but also by social, cultural, and environmental factors.

2. Prevention vs. Healing: The wellness model is more oriented towards prevention and health promotion. It emphasizes lifestyle choices and practices that can prevent diseases and improve overall well-being. In contrast, the holistic model is more focused on healing and restoration of health. It seeks to address the root causes of health issues and promote overall balance and harmony.

3. Flexibility and Adaptability vs. Traditional and Natural Approaches: The wellness model is more flexible and adaptable to different cultural contexts and individual preferences. It allows for a diverse range of approaches to achieve wellness as long as they align with evidence-based practices. On the other hand, the holistic model is often influenced by traditional and natural approaches to health, drawing from practices like Ayurveda, Traditional Chinese Medicine, and other alternative therapies.

4. Empirical Evidence vs. Intuitive Wisdom: The wellness model is largely based on empirical evidence and scientific research. It relies on data-driven approaches to understanding health and wellness. Conversely, the holistic model draws on intuitive wisdom and experiential knowledge, often passed down through generations or acquired through alternative healing practices.

It is essential to acknowledge that these distinctions do not indicate the supremacy or inferiority of one paradigm over the other. Both models offer valuable insights into health and well-being and can complement each other. Integrating aspects of both models can provide a comprehensive and holistic approach to health, addressing the complexities of individual well-being within their broader context. The key is to recognize the strengths and limitations of each model and tailor interventions accordingly to best serve the requirements of people and communities.

Concept of Healthcare

The state of an individual's health is impacted by various factors, including but not limited to sufficient nutrition, appropriate housing, fundamental sanitation, healthy lifestyles, safeguarding against environmental risks, and prevention of communicable illnesses. The scope of healthcare surpasses beyond the realm of medical care and encompasses a diverse range of services that are dispensed to individuals and communities by healthcare professionals or agents of health services[57]. Conversely, medical care pertains to the provision of individual healthcare services provided by doctors or those that arise naturally from following their prescriptions. Health care, of which medical attention is a part, is a larger whole. All governments, including India's, may provide their inhabitants with equal ability to receive effective medical treatment irrespective of their socioeconomic status.

Health Services and Structure

The central goal of health services is to efficiently address and fulfill the genuine healthcare requirements of individuals by leveraging available knowledge and resources. The establishment of a standardized and rigid role for healthcare services is neither feasible nor preferable, given the significant variations in socio-economic contexts across nations. The delivery of healthcare services to the general public is enabled by the health system, which comprises a complex web of institutions and the effective administration of both human and material assets, aimed at ensuring the provision of medical treatment to the entire community.In recent years, the landscape of healthcare service delivery has been marked by the emergence and progression of

[57] K.Kalyan Chakravarthy, et al.,(2017),'Primary Healthcare Management in India', Mittal Publications,New Delhi.

two prominent overarching themes. (a) Firstly, healthcare service delivery is expected to fulfill the requirements of the whole population, not just those of a select few groups. The delivery of healthcare services is a crucial element of a nation's social services and necessitates comprehensive coverage of preventive, curative, and rehabilitative services. (b)Secondly, establishing effective primary healthcare services is crucial it serves as the bedrock upon which the entire health system is built, fortified by an aptly designed referral system, to ensure inclusivity of health services, particularly for rural populations and urban poor. The global social policy aimed to establish primary healthcare-based health systems, with the objective of attaining universal healthcare access for all individuals by the advent of the 21st century [58].

The healthcare system's operation is affected by the political and socio-economic environment of the nation. India is characterized by five distinct sectors or agencies that differ in terms of the health technologies they employ and the financing source for their operations.

The five sectors include:[59]

1. The Public Sector: The public sector plays a crucial role in providing healthcare services and ensuring access to medical facilities for the general population. It encompasses various institutions and agencies that work towards improving the health and well-being of the citizens. The major components of the public sector in healthcare are:

(a) Primary Health Care: Primary Health Care (PHC) serves as the cornerstone of the healthcare system. It includes a network of health facilities and services that provide basic medical care and essential health services to communities. At the local level, there are Sub-Centres, which serve as the first point of contact for the local population.

The fundamental components of the primary healthcare system are represented by sub-centres. Sub Centres function as the principal healthcare institutions catering to the local people, providing crucial services such as vaccination, maternity and children healthcare, fundamental treatment, and medical information.

[58] Govt. of India (1981),Report of the Working Group on Health for All by 2000 A.D,Ministry of Health and Family Welfare.

[59] K.Kalyan Chakravarthy, et al.,(2017),'Primary Healthcare Management in India', Mittal Publications ,New Delhi

(b) Hospitals/Health Centres: Alongside primary health care, the public sector includes various hospitals and health centres, each catering to different levels of medical needs.

- Community Centres: Community health centres provide a more extensive range of services compared to Sub-Centres. They offer outpatient treatment, basic diagnostic facilities, and maternity services, among others.
- Rural Hospitals: Rural hospitals are equipped with more advanced medical facilities and services to handle moderately severe health issues and emergencies. They are essential for providing medical care in rural and remote areas.
- District Hospital/Health Centre: District hospitals serve as centralized facilities that provide specialized medical care and operate as primary referral centres for community health centres and rural hospitals. They provide an elevated standard of medical care and specialized therapy.
- Specialist Hospitals: Specialist hospitals focus on specific medical disciplines like cardiology, oncology, neurology, etc. They cater to patients requiring specialized treatment and expertise.
- Teaching Hospitals: Teaching hospitals are medical institutions affiliated with medical colleges or universities. They provide advanced medical education and training to medical students, while also offering medical services to patients.

(c) Health Insurance Schemes:The public sector also offers various health insurance schemes to provide financial support and coverage for medical expenses for certain sections of the population.

- Employee State Insurance (ESI): ESI is a social security and health insurance scheme for employees working in specific industries and establishments. It provides medical benefits and cash benefits during sickness, disability, or maternity.
- The Central Government Health Scheme (CGHS) is a healthcare programme implemented by the central government. The CGHS refers to the Central Government Health Scheme, which is a healthcare programme designed specifically for workers and retirees of the Central Government. It provides comprehensive medical facilities through a network of dispensaries, polyclinics, and empaneled hospitals.

(d) Other Agencies:

Apart from the mainstream public health services, the public sector also serves specific groups through specialized agencies.

- Defence Services: The defence sector provides healthcare services to members of the armed forces and their families through military hospitals and healthcare facilities.
- Railways: The Indian Railways also operate hospitals and medical units in order to address the health requirements of railway personnel and their dependents.

The many elements of the public sector collaborate to guarantee the delivery of vital healthcare services to the general population, prioritizing equitable access and enhanced health outcomes.

The public sector's involvement in healthcare in India is multi-faceted, encompassing primary health care through sub-centres, a diverse range of medical facilities, health insurance programmes, and initiatives aimed at enhancing the physical condition and mental state of the people. These extensive efforts reflect the government's commitment to delivering healthcare services that are equal and accessible to all of its residents, contributing to improved health outcomes and a healthier nation as a whole.

2.Private Sector: The private sector performs an essential part in the delivery of healthcare services throughout India, complementing the efforts of the public sector. The population's varied health requirements and individual preferences may be accommodated by the extensive service offerings provided by private medical establishments.

1. Ambulatory Care Centres: These are outpatient facilities that offer medical services without the need for hospital admission. Ambulatory care centres focus on providing immediate medical attention, preventive care, and follow-up treatment for various health conditions. They are equipped with specialized diagnostic equipment and offer services such as consultations, diagnostic tests, vaccinations, and minor medical procedures. Ambulatory care centres are essential in managing non-life-threatening illnesses and reducing the burden on hospital emergency departments.
2. Inpatient Facilities: Private hospitals constitute a significant part of the private healthcare sector, providing inpatient care for various medical conditions. These hospitals range from small specialty centres to large multi-specialty hospitals.

Inpatient establishments provide a comprehensive selection of healthcare and surgical treatments, including complex procedures, critical care, and specialized treatments. They are equipped with advanced medical technology, state-of-the-art operating theatres, and specialized intensive care units to provide comprehensive medical care to patients.

3. Facilities for long-term care are designed to provide continuous medical and non-medical support for individuals with chronic diseases, impairments, or diseases related to age. These facilities offer specialized care and rehabilitation services, ensuring the well-being and comfort of residents. Nursing homes assisted living facilities, and hospices can all be considered long-term healthcare institutions., providing personalized care plans and attention to meet the unique needs of each resident.

4. Specialist Clinics: Private specialist clinics focus on providing specialized medical services in specific fields such as cardiology, orthopaedics, neurology, oncology, and more. These clinics are staffed with expert medical professionals and equipped with cutting-edge technology to diagnose and treat complex medical conditions. Specialist clinics offer specialized consultations, diagnostic tests, and advanced treatment options to address patients' specific health concerns.

The private sector's involvement in healthcare brings several advantages, including a focus on innovation, specialized care, and flexible services. Private healthcare facilities often invest in modern technology, investigation, and ongoing medical education to provide the latest and most effective treatments. Moreover, the private sector offers choices to patients, allowing them to access medical services that align with their preferences and needs.

The private healthcare sector also faces challenges, such as affordability and accessibility. Private healthcare services may be costlier than public alternatives, making them less accessible to lower-income populations. The public and private sectors may work together to address these issues and maintain fair access to healthcare, working in synergy to achieve better health outcomes for the nation.

3. Traditional healing practices of Indigenous communities.

Indigenous communities across India have preserved their traditional healing practices for generations, enriching the country's diverse medical landscape. These practices are

deeply rooted in cultural beliefs and local knowledge, emphasizing natural remedies and holistic approaches to promote health and well-being.

a) Ayurveda: Ayurveda, one of the oldest medicinal systems globally, traces its origins back to ancient India. It emphasizes a harmonious balance between the body, mind, and spirit to maintain good health. Ayurvedic treatments encompass herbal medicines, dietary recommendations, detoxification procedures, meditation, and yoga. The underlying principle of Ayurveda is to identify and address the root cause of ailments rather than merely alleviating symptoms. Ayurvedic practitioners personalize treatments based on an individual's unique constitution or dosha, which comprises three main elements - Vata, Pitta, and Kapha.

b) Unani and Tibbi: Unani and Tibbi are traditional systems of medicine that emerged from ancient Greece and India, respectively. The idea of the four humors—Phlegm, Blood, Yellow Bile, and Black Bile—is included in Unani medicine, which is believed to govern health. Herbal medicines, diet, and lifestyle modifications are essential components of Unani treatments. Tibbi, on the other hand, emphasizes the balance of hot and cold qualities in the body and incorporates traditional herbal remedies and therapeutic practices to restore equilibrium and alleviate ailments.

c) Homeopathy: Homeopathy is an alternative medical system founded on the principle of "like cures like"(the law of similars). It operates on the idea that a substance that induces symptoms in a healthy individual can stimulate healing responses in a person suffering from similar symptoms. Homeopathic remedies are highly diluted substances derived from plants, minerals, or animals. Practitioners individualize treatments based on the patient's symptoms and overall health profile. Homeopathy has gained popularity forits gentle approach and minimal side effects.

d) Unlicensed or uncertified practitioners: Alongside the traditional healing practices described above, some communities may also rely on unlicensed or uncertified healers who have acquired their knowledge through oral traditions and cultural teachings. While these healers may hold significant expertise, their practices are not formally recognized by regulatory bodies or health authorities.

The traditional healing practices of Indigenous communities are a testament to the wisdom and knowledge accumulated over centuries. These practices reflect the close relationship between nature, culture, and health. As modern medicine advances,

efforts are being made to integrate traditional healing systems with evidence-based medical approaches to ensure comprehensive and inclusive healthcare for all segments of society. Recognizing and preserving these traditional healing practices are essential not only for preserving cultural heritage but also for enriching India's healthcare system with diverse and holistic approaches to health and well-being.

4. Voluntary Health Agencies (VHAs)

VHAs are important in the field of public health., operating as non-profit organizations with a primary focus on advancing public health initiatives and providing support to individuals in need. These agencies are driven by a mission to enhance the general health and well-being of people and communities, and they function independently of government institutions.

One of the key aspects of VHAs is their voluntary nature, as their operations rely on the dedication and commitment of volunteers and donors. These organizations are typically governed by a board of directors and are supported by a network of volunteers, healthcare professionals, and concerned individuals who are passionate about promoting health and wellness. VHAs often collaborate with governmental bodies, healthcare institutions, and other stakeholders to leverage resources and implement effective public health programmes.

The scope of work undertaken by VHAs is diverse and spans various health-related areas. They may focus on specific health conditions such as cancer, diabetes, heart disease, or mental health, offering support services, awareness campaigns, and research initiatives aimed at preventing, managing, or curing these conditions. VHAs are also involved in community health programmes, advocating for health policies, conducting health education workshops, and providing resources to underserved populations.

One of the unique strengths of VHAs is their ability to mobilize public support and raise awareness about critical health issues. Through fundraising events, public campaigns, and outreach efforts, VHAs garner financial support and engage the community in their mission. This grassroots approach allows VHAs to address local health disparities and tailor interventions to the specific needs of the communities they serve.

Moreover, VHAs often serve as a vital source of support for individuals facing health challenges. They offer counselling, helplines, support groups, and patient navigation services, providing a sense of community and reducing the burden of illness for patients and their families. Additionally, VHAs contribute to research efforts by funding studies, advocating for increased research funding, and disseminating evidence-based information to the public.

Voluntary Health Agencies play an integral role in the healthcare landscape, working tirelessly to promote public health, provide support, and advocate for better health outcomes. Their voluntary nature, community-based approach, and dedication to serving the public make them essential partners in the pursuit of improved health and well-being for all.

5. National Health Programmes (NHP) :

The National Health Programmes started by the government at the national level in India are important parts of the country's plan for public health. These programmes are designed to address various health challenges. They encompass a wide range of initiatives aimed at population control, eradicating transmissible diseases, improving environmental hygiene, enhancing nutritional standards, and strengthening rural health services.

Population control and family planning are among the primary objectives of the National Health Programmes. These programmes aim to provide access to family planning services, promote contraceptive use, and raise awareness about the importance of small family sizes. By empowering individuals and families with the knowledge and means to plan their pregnancies, these programmes contribute to reducing population growth rates and ensuring a better quality of life for families.

Another significant focus of these health programmes is the eradication and control of transmittable diseases. Initiatives such as the National Immunization Programme target the prevention of diseases like polio, measles, and tuberculosis through widespread vaccination campaigns. These efforts have been instrumental in significantly reducing the burden of these diseases and protecting the health of millions of children and adults across the country.

In addition to infectious illnesses, the National Health Programmes also encompass non-communicable diseases (NCDs) and lifestyle-related health issues.

Programmes focused on enhancing dietary standards, promoting healthy eating habits, and encouraging physical activity aim to combat the rising prevalence of NCDs like diabetes, cardiovascular diseases, and obesity. These efforts play a vital role in preventing and managing chronic health conditions and improving overall health outcomes.

Moreover, the National Health Programmes prioritize environmental cleanliness and hygiene. Initiatives such as Swachh Bharat Abhiyan (Clean India Mission) aim to improve sanitation facilities, promote proper waste management, and create a cleaner and healthier living environment for all. Having access to clean water as well as sanitation services is of utmost importance in preventing waterborne diseases and enhancing public health. Rural health is also a significant focus of the NHPs. Various measures have been implemented to strengthen healthcare amenities in the villages and non-urban areas, including establishing rural health centres as well as deploying healthcare professionals in underserved regions. The primary objective of these programmes is to mitigate the disparity in healthcare provision among regions that are urban and rural, therefore guaranteeing equitable availability of fundamental healthcare facilities for all individuals within the population.

Overall, NHPs play an important role in promoting public health, preventing diseases, and enhancing the well-being of the Indian population. These programmes highlight the government's dedication to tackling health concerns and enhancing the overall health condition of the country. The initiatives mentioned above make a substantial contribution to the progress of public health in India by employing a combination of preventative measures, health awareness campaigns, and enhanced healthcare infrastructure.

Levels of healthcare services

The notion of health encompasses the comprehensive condition of the wellbeing of a person physically, psychologically, and socially; and is essential not only for survival but for avoiding sickness and disability. The delivery of healthcare services by the government to its populace is a matter of utmost importance. The healthcare system is typically stratified into three distinct tiers, with each tier being contingent upon the intricacy of the medical conditions in question, as well as the requisite expertise and specialization of the healthcare professionals involved. Public

and private healthcare providers offer healthcare services across all levels. There exist three primary tiers of healthcare services. The lowest tier is Primary Healthcare, the next tier is Secondary Healthcare and the highest tier is the Tertiary Care Level.

A fourth tier or level is also in existence, although not common and rarely mentioned which is known as Quaternary care level. Quaternary care level can be considered as an extension of or a more complex level of the Tertiary care level although requiring a high level of expertise and is much more specialised and extremely atypical. It may be so specific and specialized that this category of medical care is rarely provided by the majority of hospitals and medical facilities. It concerns untried, experimental medicine and procedures and extremely unusual and specialized surgeries and procedures that are carried out for critical medical conditions.

Healthcare at the Grassroots Level

Healthcare at the primary level forms the basis and the cornerstone of the healthcare system, serving as the crucial interface between the populace and healthcare services. It is considered the most effective and accessible level of care, serving majority of the population. This level of healthcare comprises various facilities and services, all geared towards providing comprehensive and essential medical care. Among the key components of primary healthcare are Primary Health Centres (PHCs), Basic Health Units (BHUs), Rural Health Clinics (RHCs), and Tehsil Headquarters (THQs), which are typically found in rural areas. These facilities serve as primary healthcare providers for the rural population, offering a range of medical services and treatments. In addition to these, there are regional medical offices and outpatient clinics that contribute to the delivery of primary healthcare services.

General Practitioners(GPs) assume a pivotal role in delivering primary healthcare within these particular contexts. GPs serve as the frontline healthcare providers, diagnosing and treating common illnesses, providing preventive care, and managing chronic conditions. GPs form a vital link between patients and specialized healthcare services, referring them to more advanced levels of care when deemed appropriate.

Primary healthcare services focus on preventative measures, prompt detection, and proper handling of various health disorders. Immunizations, prenatal care, and screening programmes are all part of basic healthcare services. These programmes are

critical in lowering the burden of avoidable illnesses and boosting general well-being. Moreover, primary healthcare at the local level addresses the unique health challenges and needs of the community it serves. It considers the cultural, social, and economic factors that impact health outcomes, with the goal of providing treatment that is patient-focused and sensitive to these issues. By understanding the specific health needs of the community, primary healthcare services can better tailor their interventions and improve health outcomes.

Healthcare at the primary level is the foundation of the healthcare system, delivering essential medical services to the majority of the population. It plays a pivotal role in promoting population health, preventing diseases, and managing common health conditions. Through a network of primary healthcare facilities and dedicated healthcare professionals, the primary level of care ensures that healthcare services are accessible, effective, and responsive In accordance with the community's requirements.

Healthcare at the Secondary level

The secondary care level in healthcare serves as a crucial bridge between primary care and specialized tertiary care. It caters to patients who require more advanced and specialized medical attention beyond what can be provided at the primary level. This level of care encompasses a range of medical services and treatments that require a higher level of expertise and resources. In the context of healthcare provision, the secondary care level is the next step for patients who have received initial treatment and diagnosis at the primary care level. When patients present with complex or intricate medical conditions that go beyond the scope of primary care, they are referred to specialized medical professionals operating within secondary-level healthcare facilities.

In India, district hospitals and community health centres are the primary types of secondary hospitals. These facilities are equipped with more advanced medical technology, specialized medical staff, and resources to address a broader range of health issues. Patients referred to secondary care hospitals can receive more sophisticated diagnostic tests, advanced medical procedures, and specialized treatments. At the secondary care level, medical professionals possess specialized expertise in various fields such as cardiology, orthopaedics, neurology, and oncology,

among others. They are equipped to manage a wide array of medical conditions and offer comprehensive care to patients with complex health needs.

The importance of the secondary care level lies in its ability to provide timely and appropriate medical intervention to patients with more intricate health concerns. By offering specialized care, this level of healthcare helps improve patient outcomes and prevents the progression of certain medical conditions. Moreover, it serves as a vital link between primary care and tertiary care, streamlining patient referrals and ensuring a seamless continuum of healthcare services.

The secondary care level in healthcare is an essential component of the overall healthcare system. It provides specialized medical attention to patients with complex health issues beyond the scope of primary care. By offering advanced treatments and specialized expertise, secondary care facilities play a critical role in promoting better health outcomes and enhancing the overall quality of healthcare services.

The tertiary level

The tertiary care level in healthcare represents the pinnacle of medical expertise and specialized services. It is designed to address complex and challenging medical conditions that require highly specialized consultation and treatment. Patients who have been referred from lower levels of care, such as primary and secondary care, seek treatment at the tertiary care level. One of the distinguishing features of tertiary care is the presence of advanced diagnostic support services. Facilities for tertiary care are outfitted with cutting-edge medical equipment that enable precise and accurate diagnosis of intricate medical conditions. This level of care also boasts highly trained medical professionals with specialized expertise in various medical fields, including subspecialties.

Tertiary care hospitals and medical centres are known for their specialized critical care units. These units are staffed with specialized teams capable of managing critically ill patients, providing life-saving interventions, and using sophisticated medical equipment to monitor and support patients with severe medical conditions. In India, tertiary care is predominantly provided by universities and large hospitals equipped with cutting-edge medical facilities and research capabilities. These institutions house experts who specialize in specific medical areas and have access to specialized facilities to offer the highest standard of care. Due to the highly specialized

nature of tertiary care, it plays a pivotal role in managing rare and complex medical conditions. Patients with severe illnesses, advanced-stage diseases, or uncommon medical disorders benefit from the expertise and advanced treatments available at the tertiary care level.

In addition to direct patient care, tertiary care institutions often engage in medical research, which contributes to advancements in healthcare and the development of new treatment modalities. These institutions serve as academic centres that train medical professionals in subspecialties, ensuring a constant supply of specialized medical expertise for the healthcare system. Tertiary care represents the epitome of medical care, offering highly specialized consultation and treatment for complex medical conditions. Equipped with cutting-edge technology, specialized medical staff, and critical care units, tertiary care facilities are vital in providing expert care to patients with intricate health needs. These institutions also contribute to medical research and the training of specialized medical professionals, further enhancing the overall healthcare landscape.

Changing Concepts

With the growing emphasis on fulfilling national commitments to enhance healthcare globally, various approaches have emerged to improve healthcare services in different nations around the world. These diverse strategies aim to address the pressing healthcare challenges and pave the way for more accessible, efficient, and equitable healthcare systems. Some approaches to enhance healthcare services which came into existence are:

Comprehensive Healthcare

In 1946, the Bhore Committee introduced the concept of "Comprehensive Healthcare," which aimed to provide a well-rounded and coordinated healthcare approach to all individuals from birth to death, provided certain conditions were met. The core principles of comprehensive healthcare were focused on delivering adequate preventative, therapeutic, as well as primary healthcare services. Accessibility and proximity to the recipients were considered crucial factors, ensuring that healthcare services were readily available to all community members.

Emphasizing community involvement and collaboration, the Bhore Committee stressed the importance of maximizing teamwork between service

providers and community members. The idea was to encourage a sense of responsibility and engagement among the community members, promoting better healthcare outcomes through mutual cooperation. Additionally, comprehensive healthcare was envisioned as an inclusive system, providing services to all beneficiaries regardless of their financial capacity. It aimed to overcome financial barriers and ensure equitable access to healthcare for all.

The Bhore Committee also advocated for special attention to be given to the disadvantaged and marginalized groups within the community. By targeting the specific needs of these vulnerable populations, comprehensive healthcare sought to address healthcare disparities and promote health equity. Furthermore, the committee highlighted the significance of a hygienic environment in both domestic and occupational settings to ensure overall well-being and prevent disease.

These principles laid the foundation for nationwide healthcare planning in India, ultimately shaping the Five-Year Plans and driving the development of extensive rural healthcare infrastructure. This infrastructure focused on establishing primary health clinics and Sub Health Centres, with the objective of bringing comprehensive healthcare services closer to the grassroots level, particularly in rural and remote areas. As a result, comprehensive healthcare played a crucial role in shaping India's healthcare landscape and continues to influence healthcare policies and initiatives to this day.

Basic Health Services

The term ‘Basic Health Services’ has been in use since 1965 as a part of the joint health plan created by WHO and UNICEF. The idea behind "basic health services" has been delineated as a system of interconnected health facilities situated at the periphery and intermediate levels, which possess the capability to efficiently execute a set of crucial health-related tasks within a given region. Additionally, this system ensures the presence of proficient professionals and auxiliary staff to carry out these tasks effectively[60].

The transition from "comprehensive" to "basic" health services did not significantly alter the kind or quality of healthcare programmes. The limitations and

[60] WHO (1987), Seventh Rep. World Health Situation,Vol 1

challenges faced by the primary healthcare system remained quite similar to those encountered in comprehensive healthcare services. These challenges include inadequate community engagement, insufficient attention to the socioeconomic determinants of health, and limited interdepartmental collaboration, among others.

Despite the change in nomenclature, the fundamental principles of providing comprehensive and holistic healthcare services to all members of the community persisted within the new concept. The main objective of fundamental healthcare services remains centered on promoting equitable access to essential healthcare, particularly in underserved and vulnerable populations. Additionally, basic health services remain essential in promoting goals pertaining to public health, such as illness prevention, health promotion, and healthcare information. The idea of Basic Health Services has been instrumental in shaping healthcare policies and strategies worldwide. It has guided the establishment of robust and decentralized healthcare systems, ensuring that health services are easily reachable and open to everyone, regardless of their socioeconomic status or geographical location. Basic health services represent a fundamental component of comprehensive primary healthcare, fostering healthier communities and contributing to improved health outcomes on a global scale.

Primary Healthcare

The emergence of Primary Healthcare as a novel healthcare approach can be traced back to the convening of an international conference in Alma-Ata, which was formerly located in the USSR, in 1978. Preceding the Conference in Alma-Ata, the definition of primary healthcare typically encompassed notions such as fundamental health services, initial point of contact care, conveniently obtainable care, and services administered by general practitioners[61]. As per the Alma-Ata Conference, primary healthcare can be described as the provision of essential, easily accessible healthcare to all individuals and deemed satisfactory by them. This is accomplished because of the proactive involvement of concerned individuals and at a price that will be financially viable for both the locality and the nation.

[61] Chakravarthy, K.Kalyan et al.,(2017),'Primary Healthcare Management in India',Mittal Publications ,New Delhi

Primary healthcare holds universal relevance across nations, irrespective of their developmental status. The implementation of primary healthcare may exhibit variations contingent upon the level and rate of advancement within individual nations.

Foundations of Primary Healthcare

Primary healthcare serves a major part in giving people essential medical care and represents the initial interface for the majority of individuals who are in need of medical attention. The healthcare service provides treatment within the community that is all-encompassing catering to the diverse needs of patients across their lifespan. Health promotion, preventing illness, and the management of chronic illnesses, along with end-of-life care, are all included in primary healthcare. According to the Declaration of Alma-Ata, Primary Healthcare may be made accessible to every individual within a given community. The facility offers a range of services for maternal and child healthcare, which include various types of care such as reproductive well-being, birth control, vaccinations, combating regionally prevalent illnesses, treatment for widespread illnesses or wounds, delivering vital amenities, health information, promotion and exchange, the supply of nourishment and food, and ensuring an adequate supply of clean water to drink.

Primary healthcare involves providing basic medical services that are implemented using culturally appropriate methods, and available to all individuals in the community. Active community involvement is crucial in the delivery of these services, and they are affordable and feasible for both the nation and the neighborhood[62].

The year 1948 signified a momentous juncture in terms of embracing the tenets enshrined within the Universal Declaration of Human Rights. According to Article 25 of the declaration, it is proclaimed that each individual possesses the inherent entitlement to a sufficient standard of living that promotes their physical and mental well-being as well as that of their family. This encompasses the provision of necessities such as nourishment, clothing, a place to live, treatment for illness, and

[62] Primary Health Care (PHC) is usually associated with the declaration of the 1978 International Conference in Alma Ata, Kazakhstan known as the "Alma Ata Declaration".

crucial support services. Furthermore, individuals have an entitlement to safety in situations such as joblessness, illness, impairment, widowhood, retirement, and additional factors that prevent them from earning a livelihood, which are beyond their control[63]. The Constitution of the World Health Organization (WHO) unequivocally upholds the fundamental tenet that each and every individual, irrespective of their ethnicity, faith, political affiliation, financial or socioeconomic status, is entitled to the optimal level of physical and mental wellness[64]. The prioritization of social justice and equity has been a consistent theme, with an acknowledgment of the important role that local contribution plays in wellness and growth. Perspectives on these issues continue to evolve over time. The importance of political resolve has resulted in the adoption of creative strategies to increase the effectiveness of medical care in meeting people's requirements.

The World Health Organization and governments may focus their efforts in the coming decades on achieving a standard of health that allows everyone in the world to participate by the year 2000 in economically and socially beneficial pursuits, as per the Alma-Ata Declaration[65]. The declaration at Alma Ata marked a significant milestone in the global political discourse by introducing the concept of health equity. Furthermore, the declaration positioned primary healthcare as a societal priority for all countries by establishing it as a fundamental component of the objective of the WHO which has established the year 2000 as a target for achieving its aim of providing healthcare to all people. At the 1978 Alma-Ata Conference, representatives from 134 nations and NGOs pushed for a radical new approach to healthcare. The current significant disparity in health outcomes both among and within nations is deemed unsustainable. This is especially true when comparing industrialized and poor countries[66].

The fundamental theory behind "health for all" centers on the commitment to ensuring equitable and accessible healthcare services for all individuals, regardless of their socioeconomic background or geographical location. This approach aims to

[63] http://www.un.org/en/universal-declaration-human-rights/index.html viewed on 01.06.2021
[64] http://www.who.int/about/mission/en/ viewed on 01.06.2021
[65] The declaration of the 1978 International Conference in Alma Ata, Kazakhstan known as the “Alma Ata Declaration”.
[66] Ibid

eliminate various barriers that hinder individuals from achieving good health and well-being. These barriers include:

1. Malnutrition: Adequate nutrition is essential for maintaining good health. Malnutrition, whether due to an insufficient or unbalanced diet, may result in deleterious health consequences, such as impaired physical development, compromised immune responses, and heightened vulnerability to various ailments.

2. Lack of Health Awareness: A limited understanding of the causes, epidemiology, and preventive measures of diseases can hinder individuals from seeking timely and appropriate healthcare. Lack of health awareness may result in delayed diagnosis and treatment, leading to poorer health outcomes.

3. Disease and Dysfunctions: Diseases are disorders of the body that manifest through distinctive indications and symptoms. They can result from various internal and external dysfunctions, such as infections, genetic abnormalities, or lifestyle-related factors. Identifying and addressing these dysfunctions are crucial for effective disease management.

4. Water Contamination: Contaminated water supplies can serve as conducive environments for the proliferation of various diseases, particularly water-borne illnesses. The acquisition of uncontaminated and secure potable water is of paramount importance in order to avert water-related diseases and ensure better health outcomes.

5. Poor Sanitation and Hygiene: Inadequate sanitation and poor hygiene practices in residential settings can contribute to the transmission of infectious diseases. Promoting proper sanitation and hygiene practices is essential for disease prevention and overall health improvement.

To attain the objective of "universal well-being," concerted efforts are required to address these barriers. This involves implementing comprehensive public health policies, increasing health literacy through education, improving access to essential healthcare services, promoting healthier living conditions, and emphasizing preventive healthcare measures. By addressing these factors, we can create a healthier and more inclusive society, where everyone has the prospect of assuming the helm in the pursuit of a state of well-being and contentment in life.

The Alma-Ata Declaration states that all countries may develop healthcare tactics, methods, and schemes to establish and maintain basic healthcare as a cornerstone of

their national healthcare systems. It is up to each country to decide what method would work best for them in providing basic healthcare, taking into account their own needs and circumstances. As a result, the Global Strategy for Healthcare of All Individuals was established at the WHO thirty-fourth Assembly in 1981. With a view to reaching "Health for All by 2000 AD," The premise of primary healthcare was introduced in several nations. Primary healthcare is a new method of healthcare delivery that provides the groundwork for bringing together all the critical elements needed to improve the health of a country's populace on a local level.

Primary Health Care holds significance and meaning, especially for the socioeconomically disadvantaged members of the community who face challenges in accessing and affording health services. The necessity that services be both suitable and acceptable to the specific community they serve is a key aspect of primary health care, with accessibility for all community members and active community participation throughout every phase of service provision. The primary healthcare system is designed to be efficacious in its approach, encompassing preventative, promotive, and curative measures. The provision of services ought to constitute the cornerstone of healthcare management and, therefore, represent an indispensable component of the nation's healthcare governance. Efficient and multi-sectorial health administration programmes are imperative at the primary healthcare level, as health cannot be viewed in isolation.

Elements of Primary Healthcare

The implementation of Primary Healthcare as a fundamental approach to healthcare delivery and as the cornerstone for achieving universal health coverage by the year 2000 has been widely acknowledged by nations worldwide. Furthermore, it has been acknowledged as a fundamental component of the nation's healthcare infrastructure[67].

The Alma-Ata Declaration, adopted in 1978, outlines eight essential elements of primary healthcare that should be accessible to all individuals, regardless of their socioeconomic standing. These elements encompass a comprehensive and holistic

[67] WHO (1987), Techn .Rep.Ser.,No.746

approach to healthcare delivery, in order to effectively cater to the healthcare requirements of heterogeneous communities:

1. Information and Education: Ensuring that communities possess access to comprehensive information pertaining to prevalent health concerns, tactics for avoidance, and the array of therapies that are now accessible. Health education empowers individuals to make informed decisions about their well-being and adopt healthier lifestyles.
2. Nutrition and Food Security: Access to nutritious food and the promotion of healthy eating habits are vital components of primary healthcare. Addressing food security issues can significantly impact the overall health and well-being of communities.
3. Water and Sanitation: Providing a sufficient quantity of clean and uncontaminated water, for the purpose of reducing waterborne illnesses and advancing public health, is crucial, combined with adequate sanitation facilities.
4. Reproductive and Child Health: It is essential to concentrate on women and child healthcare requirements if we want to lower maternal and infant mortality rates. The health outcomes for mother and child can be improved with preventative strategies including birth control and vaccinations.
5. Immunization: The administration of vaccines assumes a pivotal role in mitigating the dissemination of contagious ailments and safeguarding societies against the occurrence of widespread outbreaks. Immunization programmes are essential in promoting herd immunity and public health.
6. Endemic Disease Management: The timely identification and effective handling of prevalent diseases, such as TB, malaria, and the spread of HIV/, are paramount for controlling disease transmission and preventing severe health consequences.
7. Management of Common Illnesses and Injuries: Adequate management of prevalent illnesses and injuries is crucial for improving health outcomes and reducing the burden on healthcare facilities.
8. Access to Essential Medications: Ensuring the availability and accessibility of necessary medications is fundamental to addressing health issues effectively. Access to affordable and quality medicines is essential for managing chronic conditions and acute illnesses.

These eight elements serve as guiding principles for the provision of primary healthcare services worldwide. By embracing these principles, countries can create a strong foundation for a comprehensive and equitable healthcare system that meets the diverse health needs of their populations.

The guiding principles and tenets of primary healthcare

There are four major ideas that make up the fundamental principles that constitute primary healthcare.

1. The principles of fairness and equality in delivering services.
2. The involvement of community members proactively in the conception, execution, and maintenance of a project.
3. The coordination between different sectors.
4. Acceptable and appropriate (for the community in question) Technology

Justice and equity

The fundamental principle governing the administration in primary care is attaining parity in the delivery of healthcare services. The concept postulates that the dispensation of Health care facilities ought to be distributed fairly and equitably. regardless of one's socioeconomic status, geographic location, or financial capacity. Furthermore, it advocates for the equitable availability of healthcare services to all members of society. A prevalent issue in numerous developing nations is that healthcare facilities tend to be clustered in cities, in contrast to their rural counterparts.

Community Engagement

The primary healthcare paradigm prioritizes a focus on the significance of people and societies being involved in the process of promoting their own physical and mental well-being. However, the State is ultimately in charge of whether or not this effort is successful. Successful attainment of goals of primary healthcare (PHC) and its management necessitates the active engagement of the entire community throughout the entire process, from the initial planning phase to the execution, conservation, and maintenance of healthcare administration.

Cross-Sectoral Cooperation

The Declaration at Alma-Ata placed significant emphasis on the significance of PHC, that lies beside the realm of medicine, and other pertinent sectors and elements related to nationwide and social growth. These include the fields of

education, agriculture, livestock rearing, nutrient provision and food production, clean drinking water, businesses, housing, infrastructure development, and interpersonal interaction. These sectors form the fundamental backdrop and framework of community life in all its diverse facets.

Appropriate/Suitable Technology

Primary healthcare necessitates utilization of technology that is scientifically valid, customized to the requirements of the concerned populace, and appropriate for both the users and beneficiaries of the technology. Additionally, the technology may be sustainable and manageable by the community itself, utilizing its own resources, and at a cost that is feasible for the country.

By incorporating these key components, primary healthcare administration aims to deliver comprehensive, equitable, and person-centered healthcare services. It serves as the foundation for achieving universal health coverage, improving health outcomes, and fostering sustainable health systems that prioritize the well-being of communities.

Components with Extended Ranges in the Twenty-First Century

1. Diverse Range of Vaccinations: In the modern era, primary healthcare has witnessed a significant expansion in the variety of vaccinations available. With advances in medical science, new vaccines have been developed to combat emerging health threats, providing a broader range of preventive measures to protect individuals and communities from infectious diseases.

2. Issues in Sexual and Reproductive Health: The focus pertaining to reproductive and sexual wellness has gained prominence in primary healthcare services. Comprehensive services related to family planning, maternal health, and education on reproductive wellness constitute essential components in primary healthcare programmes, ensuring the well-being of individuals and families.

3. Provision of Essential Health Tools: The twenty-first-century primary healthcare approach places a strong emphasis on providing fundamental tools and resources to improve health outcomes. This includes access to essential medical equipment, diagnostic tools, and technologies that facilitate early detection and timely management of health conditions.

4. Health Education and Awareness: Health education and awareness campaigns have become key strategies in modern primary healthcare systems. By promoting health literacy and empowering individuals with knowledge, communities can make informed decisions about their health, leading to better self-management and disease prevention.

5. Management of Non-Communicable Diseases: With the rise in chronic illnesses such as high blood pressure, diabetes, and other related conditions and cardiovascular conditions, primary healthcare now includes comprehensive strategies for the prophylaxis and management of these ailments. This involves implementing lifestyle interventions, early screening, and personalized treatment plans to address the specific needs of patients.

6. Food Supplements and Safety Assurance: Recognizing the role of nutrition in overall health, primary healthcare initiatives now encompass the provision of specified food supplements to address nutritional deficiencies in vulnerable populations. Furthermore, ensuring food safety has become a priority to prevent foodborne illnesses and promote the well-being of communities.

In summary, the evolution of primary healthcare in the twenty-first century has seen the incorporation of a more diverse and extensive range of components. From an expanded repertoire of vaccinations prioritize reproductive and sexual health issues as well as providing essential health tools to non-communicable disease management, modern primary healthcare strives to cater to the diverse health needs of individuals as well as communities. These developments reflect the dynamic nature of healthcare systems as they adapt to meet the ever-changing health challenges of the contemporary world.

MDGs (Millennium Development Goals) and Primary Health Care[68]

Health is given a high priority in the MDGs, which is why it receives a lot of attention. Health exhibits a direct correlation with three out of the eight development objectives, nine out of the eighteen targets spanning across six distinct goals, and eighteen out of the forty-eight indicators. The results that the MDGs imply are important for gauging the success of health initiatives and policy frameworks at the national level. Although the MDGs were not intended to cover every facet of public health, it was hoped that by taking a wide view of the objectives, significant intersecting difficulties and substantial barriers to advancement and health might be overcome.

MDGs (Millennium Development Goals) and indicators for health

MDGs[69] prioritize health and recognise its role as a crucial aspect of development and call upon governments worldwide to address issues of poor health by means such as

1. Goal 1: Elimination of severe impoverishment along with starvation

MDGs in its first goal emphasizes the importance of addressing severe poverty and hunger, recognizing that these issues have a direct impression on the health and well-being of communities and individuals. Through reducing poverty and ensuring access to nutritious food, governments aim to enhance the health of their populations as a whole and reduce the strain of malnutrition-related diseases.

2. Goal 4: Reducing Child Mortality

MDG Goal 4 focuses on decreasing child mortality rates, aiming to provide better healthcare services, immunizations, and nutrition for children. By implementing measures to prevent and treat common childhood illnesses, governments seek to reduce under-five mortality and improve the chances of survival and healthy development for children.

[68] Primary health care and the Millennium Development Goals: Issues for discussion Pertti Kekki, MD, ScD; Professor of General Practice and Primary Health Care; University of Helsinki, Finland (pertti.kekki@helsinki.fi) available at https://pdfs.semanticscholar.org/d4e0/52b93043cd8a36607c4b93f08805329df509.pdf) viewed on 01.05.2021

[69] Ibid.

3. Goal 5: Improving Maternal Health

Goal 5 aims to enhance the well-being of mothers, Acknowledging the importance of maternal health on assuring the well-being on mothers along with their offspring. Access to maternal healthcare, skilled birth attendants, and family planning services are among the key components to achieve this goal and reduce maternal mortality.

4. Goal 6: Addressing HIV/AIDS, malaria, and other diseases.

Goal 6 of the Millennium Development Goals is to reduce the burden of communicable diseases such as HIV/AIDS, malaria, and tuberculosis. To control the spread of these diseases, governments work to increase access to prevention, treatment, and care services, as well as to promote awareness and behavior modification.

5. Goal 7: Securing Sustainability of the Environment.

Goal 7 recognizes the interconnectedness of environmental health and human well-being. By promoting sustainable environmental practices, such as clean water and sanitation, governments aim to create healthier living conditions, reduce the risk of waterborne diseases, and protect natural resources that are crucial for public health.

6. Goal 8: Developing Global Partnerships for Development

MDG Goal 8 focuses on international collaborations and partnerships to foster global development. This goal recognizes that health issues often transcend national boundaries and require coordinated efforts on a global scale. By working together, governments and international organizations can pool resources, expertise, and knowledge to tackle health challenges more effectively.

The MDGs demonstrate a comprehensive approach to prioritize health as a fundamental aspect of development. Each goal targets specific health-related issues and encourages governments worldwide to take strategic actions to improve healthcare, reduce mortality rates, and address major health challenges. The MDGs and their health indicators serve as crucial benchmarks to measure progress and drive efforts toward achieving better health outcomes for all.

Primary Healthcare and (SDGs) Sustainable Development Goals[70]

The United Nations General Assembly's approval in 2015 of 17 Sustainable Development Goals (SDGs) marked a significant milestone in the global commitment to address pressing societal issues and achieve long-term development. The eight former Millennium Development Goals (MDGs) were replaced with these objectives. and aimed to build upon the progress made in the previous decade and a half. One of the key SDGs, Goal 3, specifically focuses on health and aims in order to achieve the objective of "Ensuring healthy lives and promoting well-being for all at all ages," it is imperative to implement measures that prioritize the maintenance of good health and overall well-being across all stages of life.

Within the framework of Goal 3, a comprehensive set of 13 particular targets has been delineated, including a diverse range of health-related issues. These targets aims to encompass several domains, including perinatal and pediatric health, infectious illnesses, illnesses that are not transmissible, addiction, the preservation of the environment, and the achievement of universal health care. The emphasis on these extensive and interwoven facets of health highlights the need of adopting a multifaceted approach towards healthcare, which encompasses not just the handling of illnesses but also preventive actions and general wellness.

One of the fundamental principles of achieving Goal 3 is the recognition of the crucial contribution of primary health care to long-term growth. By providing accessible, community-based, and person-centered health services, primary healthcare plays a pivotal role in addressing various health challenges outlined in SDG 3. It emphasizes the importance of preventive measures, health education, and the engagement of individuals and communities in their healthcare journey.

Moreover, the impact of primary health care extends beyond Goal 3 and aligns with several other SDGs. For instance, the emphasis on poverty reduction, nutrition improvement, environmental sustainability, and social justice resonates with the fundamentals of primary care. Through its multidimensional method, primary healthcare aids in reaching. a wide range of sustainable development objectives. To achieve SDG3 and the related targets, collaboration among governments, healthcare providers, civil society organizations, and international entities is essential. The implementation of

[70] Pettigrew, Luisa & Maeseneer, Jan & Anderson, Maria & Essuman, Akye & R Kidd, Michael & Haines, Andy. (2015), "Primary health care and the Sustainable Development Goals", *The Lancet.*,Vol 386,pp. 2119-2121

innovative policies, investment in healthcare infrastructure, and the establishment of supportive environments are vital components of this endeavor.

Goal 3 of the SDGs highlights the pivotal role of health in achieving sustainable development. The comprehensive and interconnected nature of the targets emphasizes the requirement for a comprehensive strategy in providing healthcare services. Primary health care is recognized as a fundamental component in effectively treating various health concerns outlined in SDG3 and advancing progress toward broader sustainable development goals. By prioritizing primary healthcare and promoting equitable access to healthcare services, nations can work together to build a sustainable future for all.

Healthcare Administration in India

India has employed a federal system of governance that has resulted in the division of health sector operations, financing, responsibilities, and delivery systems the provincial and federal administrations. The jurisdiction of the Ministry of Health and Family Welfare of the Government of India includes a wide range of national programmes, including but not limited to the nationwide AIDS Management Programme and the TB Management Programme. Health and family welfare are prioritized via these initiatives, as are the promotion of traditional, conventional medical practices as well as preventing and controlling the spread of major transmissible illnesses. Additionally, the Ministry is responsible for establishing customizable norms and directives for state governments. Additionally, the Ministry helps states with the control of periodic outbreaks of disease and endemics by offering technical support. In contrast, the states are accountable for arranging and providing healthcare services to the populace, which encompasses the operation of public hospitals and other healthcare facilities, implementation of sanitation initiatives, and other related endeavours. As such, healthcare falls under the purview of the state. However, the federal and state governments work together to oversee sectors with far-reaching consequences on a national scale. These include issues like family safety and demographic regulation, healthcare training, eliminating the possibility of dietary tampering and standard control in medicine production[71].

[71] M.Chokshi et al ,(2016), "Health Systems in India*"*, *Journal of Perinatology*,36 (Suppl 3).

The National Health Policy 2015 draft[72] suggests making health care a basic human entitlement. The policy's overarching goal is to inform the general public and decision-makers on the significance of government engagement in developing health-care systems in all their complexities. Administration and financing of medical care, preventing illness, promotion of optimal wellness through intersectoral activities, availability of innovations, development of human capital, reinforcement in medical diversity, construction of information resources essential for enhancing well-being, implementation of monetary safeguard methods, and regulation and health legislation are all part of this.

A widely held belief among the vast majority of people in India is the fact that all health services provided at public or government health facilities are offered free of charge. These services encompass a wide range of medical care, including preventive measures, primary medical care, medical diagnostics, ambulatory care, and in-patient hospital care. However, the reality is far from this perception, as the healthcare system faces significant challenges, resulting in limited access to government-provided healthcare services. The scarcity of healthcare personnel and resources poses obstacles to the effective delivery of healthcare to the population.

In India, essential drugs listed on the government's essential drug list are indeed distributed free of charge, but their availability often remains inconsistent due to supply constraints. On the other hand, non-essential prescription drugs may be obtained from private drug stores or pharmacies, incurring costs for the patients. It is worth noting that commendable actions have been initiated by India in dealing with specific health challenges, including HIV/AIDS, by implementing the largest government-funded programme for HIV/AIDS medication globally. Additionally, efforts are made to combat diseases transmitted by mosquitoes, like malaria and dengue fever, by distributing pesticide-coated mosquito nets and providing free diagnostic services.

Health services for mothers and children, including immunizations, are offered without charge to alleviate financial barriers to accessing essential care. Government programmes provide health coverage for certain segments of the population, ensuring

[72]National Health Policy Draft, 2015 available on https://www.nhp.gov.in/sites/default/files/pdf/draft_national_health_policy_2015.pdf viewed on 02.05.2021

that individuals do not have to pay out of pocket for most of the care they receive. However, the coverage is limited, and not all segments of the population can benefit from these health plans, raising concerns about justice and equity in healthcare provision.

Overall, while the intention to provide free healthcare services exists, the challenges of resource constraints and limited coverage underscore the need for further efforts to enhance the accessibility and availability of government-provided healthcare services to ensure equitable and just healthcare for all citizens. Regulatory and legislative measures, as well as strategic resource allocation, are essential aspects of improving healthcare delivery in India and achieving optimal health outcomes for the entire population[73].

Health Policy in Response to the COVID-19 Pandemic in India

The coronavirus, alternatively referred to as COVID-19, is a contagious disease brought on by the SARS-CoV-2 virus. The initial recorded instance was detected in Wuhan, China, during the month of December in the year 2019. The ailment has subsequently disseminated on a global scale, resulting in a persistent pandemic[74].

Given the global challenge and threat presented by the escalating Covid epidemic, which has a significant effect on the entire world, the Indian government is implementing all requisite measures to curtail the transmission of the virus[75]. The Indian government initiated the dispensation of COVID-19 vaccines on January 16, 2021, commencing with the central government's initiative to provide free vaccinations to senior citizens aged 45 and above. At the commencement of the programme, two vaccines were granted emergency use authorization in India. These vaccines are Covishield and Covaxin. The Indian government granted approval for the Russian Sputnik V vaccine in April 2021, and it was subsequently introduced as a third vaccine option in May 2021, with distribution being facilitated by Dr. Reddy's

[73] I.Gupta and S.Chowdhury(2014), 'Public Financing for Health Coverage in India: Who Spends, Who Benefits and At What Cost?', *Economic & Political Weekly*, Aug. 30, 2014 49(35).
[74] https://en.wikipedia.org/wiki/COVID-19 viewed on 01.06.2021
[75] https://www.mygov.in/covid-19/ viewed on 01.06.2012

Laboratories[76]. With the aim of intensifying the immunization campaign, a minimum of 24 Indian states have declared their intention to provide free-of-charge vaccination to their populace. While certain states have implemented policies to provide free vaccination to all individuals, others have specified that it will only be available at no cost to those within the age range of 18 to 45. Nonetheless, the federal administration's initiative to provide complimentary vaccinations to individuals aged 45 and above will keep on[77]. The vaccination campaign aimed at combating SARS-CoV-2 has been extended to encompass individuals aged 18 years and above, effective from May 1st, 2021[78].

In India, there are five tiers of government involved in healthcare management, from the national administration down to the grassroots level. Indian healthcare system comprises a hierarchical administrative framework, with the Ministry of Health and Family Welfare at the highest level, together with the health departments of different states and municipalities. Every state has a health and welfare department or directorate, and the health services provided at the District level constitute a vital link between primary care and the state healthcare system. Among the several organizations responsible for managing the healthcare system is the Insurance Regulatory and Development Authority. India faces clarity issues on the bodies responsible for regulating the private sector and maintaining the appropriate level of care. This is because there are so many organizations, each of which reports to a different ministry.

India's healthcare system combines government and private institutions, encompassing a broad spectrum of medical practitioners ranging from individual private physicians to specialized and comprehensive tertiary care hospitals[79]. India's healthcare system has three levels: primary, intermediate, and tertiary. The provision of primary healthcare services is effectively executed through a comprehensive framework that consists of sub-health centres , primary health centres(PHC),

[76] https://en.wikipedia.org/wiki/COVID-19_vaccination_in_India viewed on 01.06.2021

[77] https://www.indiatoday.in/coronavirus-outbreak/vaccine-updates/story/full-list-of-states-providing-free-covid-19-vaccine-from-may-1-1795067-2021-04-26 viewed on 01.06.2021

[78] Ibid

[79]Indrani Gupta and Mrigesh Bhatia, '*The Indian Health Care System*', London School of Economics and Political Science found in https://international.commonwealthfund.org/countries/india/ viewed on 03.05.2021

and community health centres(CHC)[80]. The Sub Centres functions as the primary and inaugural locus of involvement, bridging the healthcare system and the community, with a focus on managing maternal and paediatric care and disease prevention for a populace ranging from 3,000 to 5,000. A team comprising at least one male and female health worker is responsible for overseeing each sub-centre.

The primary health centre serves as an initial interface between the community and a medical practitioner, offering therapeutic and preventative healthcare services to a population of 20,000 to 30,000 individuals. These facilities function as reference centre for six subordinate units and are equipped with a patient capacity of four to six beds.

State governments manage community health centres with medical specialists and paramedical and ancillary personnel, ensuring their proper upkeep and functioning. These centres are equipped with laboratories, X-rays, and other related amenities. The scope of coverage encompasses a population ranging from 80,000 to 120,000 individuals.Only if a district hospital or community health centre has the ability to offer 24/7 emergency obstetric care and blood storage is it regarded as a functional first referral unit. The rural population's secondary public healthcare provider, district hospitals focus on preventative care and acute medical emergencies.

To sum up, the present chapter deals with conceptual framework and principles of Health Administration and Primary Health Care Delivery Services from global, national and state perspectives. The chapter explores the idea of health, the three primary schools of thought regarding health—the medical,holistic, and wellness models, the concept of healthcare, the health system, the sectors and agencies that make up the healthcare system, the different levels of healthcare, and the evolving concepts of health, such as Comprehensive Healthcare, Basic Health Services, Primary Health Care and its fundamental idea, Elements of Primary Healthcare, Essential Workings of Primary Healthcare, and Elements of Primary Healthcare.

[80] Ministry of Health and Family Welfare, Annual Report, Chapter 1: Organization and Infrastructure, 2015.

CHAPTER III

HEALTH ADMINISTRATION IN INDIA - A HISTORICAL PERSPECTIVE

The preceding chapter has addressed the conceptual framework and principles of Health Administration and Primary Healthcare Service Delivery from the international, national, and state perspectives. The chapter delves into several facets of health, including the notion of health, primary approaches to health (i.e., medical, holistic, and wellness models), healthcare concepts, health systems, healthcare sectors and agencies, levels of healthcare, evolving concepts of health such as Comprehensive Healthcare, Basic Health Services, and Primary Health Care, along with their basic elements, principles, and essential components. Moreover, the chapter also discusses the extended elements of Primary Healthcare in the 21st century and India's healthcare following the outbreak of COVID-19.

The present chapter focusses on the historical perspective of Healthcare administration in India, with some information about the genesis and evolution of health care in general, and primary healthcare in particular. It also discusses the present status of health administration, primary health care delivery service with respect to the essential as well as desirable role and functions performed by the Sub Centres/Clinics existing in India, as the primary point of contact between the people and the health system. These facilities play a vital role in providing basic medical treatment, vaccinations, maternal and child healthcare, disease surveillance, health education, and referrals to higher healthcare facilities.

As of June 14, 2021, India's population stands at 1,392,864,531[81] making it the country with the second largest population globally, surpassed only by China [82]. The Indian Economy, in the recent decade, before the pandemic and also a couple of years before the pandemic, which witnessed a downturn in overall economic growth - had seen robust growth , stable and satisfactory fiscal consolidation. The economy was even expected to come back with an upturn and an estimated growth rate of 7.0-7.5

[81] Based on Worldometer elaboration of the latest United Nations data, "India Population (2021) - Worldometer" available on https://www.worldometers.info/world-population/india-population/ viewed on 15th June,2021

[82] United Nations. *World Population Prospects.* Population Division New York: Department of Economic and Social Affairs; 2017.

percent in 2018-2019[83] had it not been for the COVID-19 worldwide pandemic which has taken an unprecedented toll on India's health and economy.

In 1990, India's HDI stood at 0.429, reflecting a life expectancy of 7.6 years, an expected education level of 3.0 years, and a per capita GNI of 1,787 international dollars. During the same year, the Inequality-adjusted Human Development Index (IHDI) was reported to be 0.429. By 2019, India had made significant progress, with its HDI increasing to 0.645. This placed India in the category of "medium human development," ranking it 131 out of 189 nations. The key criteria used for calculating HDI include life expectancy at birth, anticipated years of formal education (mean years of schooling), and the Gross National Income (GNI) measured in 2017 international dollars. This data provides valuable insights into India's developmental journey over time, showcasing substantial improvements in its socio-economic and human development indicators[84].

The median number of years an individual may anticipate to live in India has increased dramatically, by 11.8, during the past decade, from 1990 to 2019. The average duration of years spent in educational institutions has seen a notable increase of 3.5 years, while the anticipated length of time individuals are expected to be enrolled in school has risen by 4.5 years. There has been a significant increase in recent years of over 273.9 percent in India's GDP per capita[85].

The noticeable assumption could be that, over the years India is developing at a fairly comfortable rate in respect of its health indicators. The figures show that India's Healthcare scenario has documented laudable progress on various health indicators not only on life expectancy but also on maternal and infant mortality. In India, the Maternal Mortality Ratio has been declining, with a decrease from 130 in 2014-2016 to 113 in 2016-18, as well as a decline from 122 in 2015-17[86]. In 2018,

[83] This was stated in the Economic Survey 2017-2918 tabled in Parliament by the then Union Minister for Finance and Corporate Affairs, Shri Arun Jaitley, available on https://www.financialexpress.com/budget/economic-survey-2017-18-gdp-growth-india-growth-rate-rebound-arun-jaitley/1034135/ viewed on 15th June,2021

[84] Ibid

[85] Human Development Report,2020, **The Next Frontier: Human Development and the Anthropocene** ***Briefing note for countries on the 2020 Human Development Report*** India available from hdr.undp.org › sites › all

[86] Special Bulletin on Maternal Mortality in India 2016-2018, July 2020 available on www.censusindia.gov.in › vital_statistics › SRS viewed on 15.06.2021

there were 32 newborn deaths for every 1,000 live births; this is a significant decrease from the 129 infant deaths recorded in 1971[87]. However, in spite of the positive picture painted by these numbers and data, the current healthcare scenario is far from perfect and India continues to face major challenges posed by numerous factors, attributed to diverse social, economic, and political factors-added to by the recent health challenges which have been exacerbated by the Covid-19 pandemic leading to an unprecedented rise in morbidity, comorbidity, and mortality rate.

Historical Perspective of Health Administration in India

Ancient India was the cradle of numerous great sciences, including medical science, and eventually became the hub and focal point for these disciplines. As a result, its prominence drew the interest of the entire ancient world, prompting curious individuals from distant lands to journey to India with the desire to acquire knowledge and learn. In a nation like India, boasting a profoundly abundant and historically significant past, and being home to one of the most ancient civilizations on Earth, the establishment of a well-structured healthcare system from antiquity comes as no surprise. The historical journey of Science and Technology in India, supported by present-day archaeological evidence, traces back to the Indus Valley Civilization, commonly known as the Pre-Vedic period. This remarkable era marks the foundation of India's scientific and technological heritage, laying the groundwork for the exceptional advancements that followed throughout its history.

Archaeological discoveries, combined with contemporary genetic research, provide evidence of ancient human migrations into India. It is fascinating to observe that the use of medicinal herbs and plants can be traced back to the earliest human settlements, reflecting the profound historical roots of medical knowledge in the region. Over time, this knowledge has evolved, resulting in the vast body of medical science we possess today.

The growth of medical expertise has been a gradual process, influenced by both the use of trial and error as well as the dissemination of information among multiple populations in different parts of the world. Throughout history, various cultures have contributed to this collective pool of medical knowledge, enriching it

[87] SRS Bulletin Survey, Sample Registration Sytem,Volume 53,No.1,May 2020 available on censusindia.gov.in › vital_statistics › SRS_Bulletins viewed on 15.06.2021

with their unique practices and insights. The process of knowledge exchange and assimilation continues to shape modern medical practices. Traditional medicine, with its deep-rooted cultural significance and healing traditions, now finds itself navigating alongside modern biomedicine. This ongoing interaction between the two spheres necessitates a mutual accommodation, where traditional practices are adapted to abide by the rules and regulations of modern healthcare.

At the present time, we find ourselves in a position of advantage, since we are able to draw from the knowledge and insights accumulated by preceding generations. The acknowledgment of the interdependence between various medical professions and the constant interchange of ideas highlights the perpetual nature of the process of medical advancement. The promotion of variety and the exploration of novel avenues are integral aspects of our collective medical legacy, as they foster advancements in the realm of healthcare and contribute to the enhancement of population health and well-being as a whole.

India's long tradition and history of healthcare have been referred to from well-documented ancient scriptures like the Vedas and the two Sanskrit medical texts- Sushruta Samhita and Charak Samhita[88]. The traditional Hindu system of medicine and healing- Ayurveda, incorporated in Atharva Veda, with inimitable emphasis on total wellness of mind, body, and soul, is thought to be one of the oldest holistic medical healing models. Ayurveda, derived from the Sanskrit terms "Ayur" (life) and "Veda" (knowledge), translates to "knowledge of life." It is an ancient system of medicine that has its roots deeply ingrained in the cultural and spiritual fabric of India. According to traditional belief, Ayurveda was not an invention of human minds but a divine gift from the gods themselves, imparted to the sages and rishis through divine revelations.

The sacred texts of Ayurveda, known as the Vedas, are among the oldest scriptures in the world. They are considered to be divinely inspired and are revered for their profound wisdom on health, well-being, and the interconnectedness of humans

[88] See Saini A. Physicians of ancient India. J Family Med Prim Care. 2016 Apr-Jun;5(2):254-258. doi: 10.4103/2249-4863.192322. PMID: 27843823; PMCID: PMC5084543 and https://ehealth.eletsonline.com/2019/01/how-has-indian-healthcare-sector-evolved-in-last-70-years/ viewed on 03.10.2021

with nature. The knowledge of Ayurveda is believed to have been passed down from generation to generation, initially through oral transmission, and later documented in ancient texts like the Charaka Samhita and Sushruta Samhita. Ayurveda is a comprehensive structure of healing that places great importance on achieving optimal health through the harmonious functioning of the physical, mental, and spiritual realms. It views each individual as a unique combination of elements known as doshas (Vata, Pitta, and Kapha) and aims to restore harmony and balance within these elements to promote well-being. The ancient medical system includes a range of practices such as the use of herbs, dietary habits, detoxification, massage therapy, meditation, along with yoga.

Over the course of millennia, the ancient practice has undergone significant evolution and adapted to changing times while retaining its core principles. It has withstood the test of time and continues to be practiced and respected as a comprehensive system of healing in modern times. As the world recognizes the value of holistic health approaches, Ayurveda's ancient wisdom finds a renewed appreciation and is increasingly integrated into contemporary healthcare practices. The reverence for Ayurveda as a divine knowledge passed down through divine intervention has contributed to its enduring significance and timeless appeal. Its principles, rooted in a deep understanding of human nature and the universe, offer valuable insights into the art of living in harmony with oneself and the world around us.

The Universities of Taxila and Nalanda were known to impart medical education that originated from conventional Indian medicine[89]. The Universities of Taxila and Nalanda were renowned centres of learning in ancient India, where a comprehensive education in various disciplines, including medicine, was imparted. These universities were instrumental in disseminating knowledge of conventional Indian medicine, which encompasses the ancient medical system of Ayurveda.

At Taxila, located in present-day Pakistan, students had the opportunity to study a wide range of subjects, including medicine. The curriculum at Taxila emphasized a holistic approach to health, with Ayurvedic principles forming a crucial

89 Ibid

part of the medical education. Students were taught about the doshas, the importance of diet and lifestyle, and various herbal remedies for treating illnesses. Nalanda, situated in present-day Bihar, India, was a grand institution of higher learning and attracted scholars and students from across the world. Ayurveda was among the subjects taught at Nalanda, and students had the opportunity to delve into the intricacies of traditional Indian medicine. The teachings at Nalanda emphasized the interplay of the physical body, and the mental body, and the utilization of herbal medicines to restore balance and harmony within the individual.

These universities accomplished an essential function in preserving and propagating the knowledge of Ayurvedic and other conventional Indian therapeutic practices. Medical education provided at Taxila and Nalanda provided the groundwork for the rich medical heritage of India and influenced the development of healthcare practices in the Indian subcontinent.

Modern medicine was introduced to India during the 17th century through the formation of European commercial outposts and colonial rule[90]. The arrival of the Portuguese, Dutch, French, and British in India brought with them Western medical practices and knowledge. These colonial powers established hospitals and medical schools to cater to their own personnel and the local population. With time, Western medicine began to gain acceptance and influence in India, especially among the urban elite and the ruling class. The British East India Company played a significant role in promoting Western medical education and practices through the establishment of medical colleges like Madras Medical College (1835) and Calcutta Medical College (1835).

During the 19th century, British physicians and missionaries contributed to the growth of Western medicine in India. They introduced modern medicine, conducted research, and initiated public health initiatives to combat diseases like malaria, smallpox, and cholera. Despite the growing influence of Western medicine, traditional Indian medical systems, such as Ayurveda, continued to coexist and be practiced in various regions of the country. Over time, efforts were made to integrate elements of traditional medicine into the modern healthcare system, giving rise to a

[90] Ibid

unique blend of medical practices known as "integrative medicine." Today, India boasts a strong healthcare system that encompasses modern Western medicine alongside traditional medical systems. The country is known for producing skilled medical professionals and researchers providing services within the country and abroad, and its healthcare infrastructure caters to the needs of a vast and diverse population.

The introduction of modern medicine to India during the 17th century marked the beginning of a transformative journey that has shaped the nation's approach to healthcare and has had an enormous effect on its people's health and well-being. The post-Independence era has seen tremendous changes and developments in healthcare and the health sector.

Ancient India

VEDIC PERIOD

During the Neolithic era, as human populations transitioned from cave dwellings to settling in areas surrounding prominent rivers like the Indus, Nile, Tigris, and Euphrates, a notable sense of concern and fear towards the harmful consequences of diseases emerged. These early civilizations believed that the onset of afflictions was a result of various supernatural phenomena, attributing them to the influence of spirits, demons, curses, and other metaphysical forces[91]. In their limited understanding of the natural world, these populations sought to explain the causes of illnesses through religious and spiritual explanations, as they grappled with the mysteries of health and disease.

Living in close proximity to the unpredictable and sometimes hostile forces of nature, early human societies developed intricate belief systems that often intertwined health and spirituality. The concept of divine retribution or displeasure was associated with outbreaks of diseases, prompting communities to seek protection and appease powerful deities. In response to the uncertainty and fear surrounding ailments, religious rituals, offerings, and rites were conducted to repel harmful entities and seek blessings from benevolent entities.

[91] Charles M.Tipton (2013\4),' The history of "Exercise Is Medicine" ', Advances in Physiology Education, The American Physiological Society, pp.109-117 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4056176/)

This deep-rooted connection between spirituality and health laid the groundwork for ancient healing practices and medical traditions. Early healers and shamans served as intermediaries between the human realm and the divine, using their knowledge of herbs, rituals, and incantations to combat illnesses and restore harmony within the community. Their roles encompassed not only physical healing but also addressing the spiritual and psychological well-being of the afflicted individuals. The Indus Valley region went through an invasion by the Indo-European group known as the Aryans circa 2000 BCE. This event led to the establishment of the Hindu culture and the composition of their revered scriptures[92]. Although the Aryan came with their own gods and own medical knowledge, Indus Valley civilization and culture was so much more developed that, with the passing of time it swiftly absorbed the Aryan culture.

The four Vedas serve as the main sources of knowledge about the Aryan Culture and its medicinal practices. The four Vedas contain numerous allusions to diverse facets of medicine. During that period, deities such as Rudra, Agni, Varuna, Indra, and Maruthi were identified as Divine healers[93]. The Atharva Veda, as the fourth of the Vedas, is renowned for being one of the earliest and most significant repositories of ancient medical wisdom during its time. Within its sacred verses, the foundation of the science of Ayurveda, a time-honoured system of natural healing, can be traced back to its roots. This deep connection between the Atharva Veda and Ayurveda stands as a testament to the profound wisdom and understanding of health and wellness that our ancestors possessed. The knowledge imparted in this ancient text continues to be a source of inspiration and guidance for the practice of holistic healing to this day[94]. The Atharva Veda contains prayers, hymns, charms, and incantations to reveal means and methods to defend people against all kinds of diseases as well as natural disasters.

[92] Ibid
[93] A.Narayana(1995), "Medical Science in Ancient Indian Culture with special reference to Atharva Veda" in Bulletin of the *Indian Institute* of *History* of Medicine, Vol. XXV p. 100
[94] Manu Sharma (2016). "Ancient Ayurvedic medical rituals and healing traditions in Vedic texts" in Man In India, 96 (4), Serials Publications. pp 985-986

The Atharva Veda contains natural preventive and lifestyle methods for the prevention of most of diseases as well as their treatments, mostly natural and herbal remedies with little side effects. There were also mentions of invasive treatments including delicate operations like the probing of the Urethra which was prescribed for patients suffering from the retention of urine[95].The *Rigveda,* in contrast, also mentions about diseases of various kinds and medicinal plants but to a much lesser extent than the Atharva Veda, and it requires further study and critical appreciation[96].

Ayurveda, a field of study related to traditional Indian medicine, is commonly considered to be a sub-discipline of the Atharva Veda [97].Unlike other medical sciences of healing, Ayurveda focusses more on preventive aspects and the intricate connect of the senses, mind, body and soul adopting a holistic approach to health. The science emphasises healthy lifestyle practices and less on the curative aspect. It personalises the healing process into an art of living.

Ayurveda, an ancient system of medicine originating in India, has exerted a profound impact on the medical and health-related knowledge of numerous other civilizations throughout history. Its principles rest on the belief that the entire network of life is interconnected. The ancient Indian tradition of scientific healthcare is evidenced by the philosophy of Ayurveda, the renowned medical treatise "Charaka Samhita"- Charaka's compilation and Sushrutha's surgical expertise, recognized as the progenitor of Indian surgery, are noteworthy contributions to the field[98]. The vaidya, who were Ayurvedic physicians, constituted a recognized occupational group that was not differentiated as a caste, but rather tended to inherit their profession from their ancestors[99].

[95] Ibid, p.107

[96] Amiya Kumar Mukhopadhyay(2013)"Skin in health and diseases in Rigveda Samhita: An Overview." *Indian Journal of Dermatology* vol. 58,6: 413-6. doi:10.4103/0019-5154.119945

[97] Manu Sharma (2016) Op.Cit. pp 986

[98] Dr. S. K. Jawahar (2006/2007), "Healthcare Scenario in India" in ICU Management and Practise, ICU Volume 6-Issue 4-Winter 2006/2007

[99] A.L. Basham, "The practice of Medicine in Ancient and Medieval India", in Charles Leslie (ed.), Asian Medical Systems: A Comparative Study, University of California Press, Berkeley, Los Angeles, London, 1976, p.23

The Buddhist Period (563 -477 BC)

Buddhism, as a faith and as a religion, was founded in Northern India around 500BCE[100] by Siddhartha Gautama, a famous historical figure born in a royal family as a prince in Lumbini (Modern day Nepal) whose life is shrouded in myth and legend. He lived a life of luxury, married at age 16, oblivious to the hardships and sufferings of life till he attained 29 years when he embarked on a journey through the rural areas and encountered what is commonly referred to as the 'Four Passing Sights'.

The Four Passing Sights encompassed the profound observations made by Gautama, the prince, as he ventured beyond the palace walls. In these transformative encounters, he first witnessed the sight of an elderly person, whose aged countenance and frailty exposed the inevitable passage of time and the fleeting nature of youth and beauty. This initial encounter left an indelible impression on him, prompting him to contemplate the impermanence of life. The second sight he beheld was that of an ailing individual, consumed by the ravages of sickness and pain. This poignant encounter awakened within him a deep sense of empathy and compassion, as he came to grasp the universality of suffering that afflicts humanity regardless of wealth or status. The realization of human vulnerability and the unpredictability of health and well-being weighed heavily on his soul, leading him to question the purpose and meaning of existence.

Continuing his explorations, the third sight presented to Gautama was that of a lifeless, deceased body. Death, the inevitable fate that awaits every living being, stared back at him, serving as a stark reminder of mortality's inescapable grasp. The fragility and transience of life unfolded before him, urging him to seek answers beyond the superficial pleasures of royal life and prompting him to delve deeper into the mysteries of existence. Finally, the last of the Four Passing Sights revealed an ascetic, a wandering monk, who had renounced all worldly attachments and desires. In this serene figure, Gautama glimpsed a path toward liberation—a way to break free from the eternal cycle of suffering, sickness, and death that permeates life. The ascetic's serene countenance and detachment from material possessions offered a vision of profound inner peace and contentment, a state unburdened by fear and sorrow.

[100] Conrad Harvey (2006), A BUDDHIST PERSPECTIVE ON HEALTH AND SPIRITUALITY in Scottish Journal of Healthcare Chaplaincy Vol. 9. No. 1. p.33.

His face-to-face encounter with life through ‘The Four Passing Sights’ disillusioned Gautama and shortly after, he renounced his wealth and life and began his adamant search for enlightenment. After six years of searching, he found ‘Enlightenment’ while meditating under a Bodhi tree. From then on, he became ‘Buddha’ which means ‘Awakened One”[101]. The remainder of his existence was dedicated to instructing and proclaiming the methodology or route for conquering distress in every manifestation[102].

Although Buddha himself did not record his teachings in written form, his philosophical messages were diligently preserved and transmitted orally by his devoted followers. Over time, these teachings were amalgamated into what is now famously known as the 'Dharma' or the Buddha's teachings. The oral tradition of passing down the Dharma continued for several generations until it eventually found its way into written scriptures. Throughout the centuries following Buddha's lifetime, his followers painstakingly memorized and recited his teachings, ensuring their preservation and accuracy. This oral transmission was characterized by a meticulous commitment to maintaining the purity and integrity of the Buddha's insights. By adhering to this sacred tradition, his followers safeguarded his enduring wisdom for generations to come.

As the Dharma continued to spread across different regions and communities, it began to take a more structured and organized form. Buddhist councils were convened and learned scholars compiled the teachings, drawing from the collective memory of the monastic community. This gradual process of consolidating the Dharma into written texts allowed for a broader dissemination of the Buddha's timeless wisdom beyond the confines of oral tradition. The written scriptures, composed in various languages like Pali, Sanskrit, and other regional tongues, teachings of the Buddha, including the Eightfold Path of Wisdom and the Four Truths of the Buddha, and various discourses on ethics, meditation, and wisdom.

These sacred texts not only served as a comprehensive repository of Buddhist philosophy and practice but also facilitated the transmission of the Dharma across diverse cultures and geographies. Buddha founded a religious order called the

[101] Ibid
[102] Ibid

‘Sangha’ which has survived to this day to foster his teaching and principles. The Buddha represents the spiritual leader, the Dharma embodies the doctrine or teachings, and the Sangha denotes the monastic order or community[103].

The teachings of Buddha originated in India and were subsequently disseminated to various regions across the globe, exerting a noteworthy impact on thehealthcare practices and systems of those regions. It is significant, however, that Buddhism, as a fundamental doctrine, does not proffer any specific directives or limitations concerning the existing healthcare systems and medical sciences. Buddhism lays stress on individual responsibility and the freedom and wisdom of each individual to make his or her own decision while keeping in mind the Buddhist principle of moderation, or following the "middle way," or avoiding excesses of restraint on one side and self-indulgence on the other - in respect of diet, lifestyle and medical treatment. This individual responsibility in respect of leading a life of moderation in all aspects is conceivably the key to maintaining health because many of the diseases we suffer and even die from are due to excesses which can be avoided if one maintains a degree of balance in one’s lifestyle and diet.

According to Buddhist tradition, the Buddha is regarded as the original and fundamental healer, not just in the physical sense, but also in a deeper and more profound manner[104]. As the Awakened One, the Buddha's healing abilities extended far beyond curing physical ailments. His teachings and compassionate presence offered healing at various levels of human suffering, addressing the root causes of pain and guiding individuals toward inner peace and liberation. The Buddha's healing approach was all-inclusive, encompassing the body, mind, and spirit. While he acknowledged the importance of physical well-being, he also emphasized the significance of mental and emotional health. Moreover, the Buddha's teachings on mindfulness and meditation provided powerful tools for individuals to develop self-awareness and cultivate inner peace. By practicing mindfulness, one could gain insights into the workings of the mind and break free from negative thought patterns that contribute to mental and emotional suffering.

[103] Ibid.
[104] Ibid

The Buddha's compassionate presence was equally transformative. He engaged with people from all walks of life, listening attentively to their struggles and offering guidance that directly addressed their individual needs. His deep empathy and wisdom inspired countless individuals to find solace, hope, and understanding amidst the challenges of life. Beyond his direct interactions, the Buddha's teachings have continued to heal and inspire people across the ages. The Dharma, as recorded by his disciples and followers, became a source of profound wisdom and guidance, leading countless seekers towards personal transformation and liberation from suffering.

The concept of the "Bodhisattva," an enlightened being who compassionately works for the welfare and liberation of others, reflects the essence of the Buddha as the ultimate healer. His life serves as a timeless model for compassionate action and selfless service, inspiring generations of Buddhists to follow the path of benevolence and healing[105]. During his initial discourse at Sarnath, Gautam Buddha expounded upon the Four Noble Truths, which consist of the following: the existence of suffering (dukkha), the root cause of suffering being attachment and ignorance (dukkha samudaya), the potential to surmount suffering (dukkha nirodha), and the means to achieve this end being the Eightfold Noble Path (dukkha nirodha marga)[106].

Buddha is often considered a great physician and healer in the sense that suffering and pain are diseases, his prescription - the noble eightfold paths are courses of treatments that can bring health and cure from diseases that cause human suffering in terms of the mind, body, and soul. His teachings had great insights and wisdom and were considered a therapy in themselves. The Buddhist meditation techniques are considered quite beneficial in treating chronic diseases and mental illnesses. In Buddhism, the act of treating the sick and alleviating suffering is considered a noble and compassionate endeavour. Throughout his teachings, the Buddha emphasized the importance of loving-kindness and compassion towards all sentient beings, especially those who are afflicted with illness and pain. His own actions and teachings set a

[105] Ibid.

[106] Sanjay Kalra, Gagan Priya, Emmy Grewal, Than Than Aye, B.K. Waraich, Tint SweLatt, Touch Khun, Menh Phanvarine, Sun Sutta, Uditha Kaush, Manilka, Sundeep Ruder, Bharti Kalra(2018), "Lessons for the Health-care Practitioner from Buddhism" in Indian J Endocrinol Metab. 2018 Nov-Dec; 22(6): 812–817. doi: 10.4103/ijem.IJEM_286_17

powerful example, and he encouraged his followers to engage in acts of service and care for the sick and suffering.

During his extensive travels, the Buddha established Buddhist Viharas, which were monastic dwellings and places of spiritual practice for his ordained disciples. However, these Viharas were not solely centres of meditation and religious study; they also played a vital function in supplying care and assistance to those in need. The Buddha recognized the interconnectedness of all beings and understood that tending to the physical and emotional well-being of others was an integral part of the path to liberation. In these monastic communities, the monks and nuns were taught to uphold the values of metta (loving-kindness) and karuna (compassion) towards all living beings. This included extending their compassion to the sick and suffering. Monastic life offered a supportive environment for individuals to develop empathy and a deep sense of responsibility for the welfare of others.

Within the Buddhist Viharas, a designated portion of resources was allocated to caring for the sick and attending to their needs. Monks and nuns, as part of their practice, would visit the sick to provide comfort, solace, and spiritual guidance. They would offer prayers and blessings, fostering a healing atmosphere for the patient. Moreover, the monastic communities also welcomed lay practitioners and devotees, who sought refuge or sought advice from the Buddha and his disciples. The sick and suffering were not only cared for by the monastic sangha but also received support from lay followers who offered food, medicine, and other necessities with a spirit of generosity.

The Buddha's teachings on the Four Brahmaviharas, also known as the Four Immeasurables, further reinforced the importance of compassion and empathetic joy. These qualities were cultivated to embrace all beings, including the sick and suffering, without any discrimination or prejudice. By placing a strong emphasis on the act of caring for the sick and alleviating suffering, the Buddhist Viharas became centres of compassion and healing. The impact of these efforts extended beyond the confines of the monastic communities, influencing society at large and fostering a culture of care and empathy within the broader community.

Buddhism considers the treatment of the sick and the alleviation of suffering as a noble cause. The establishment of Buddhist Viharas provided an environment

where compassion and care were given utmost importance. Through these monastic communities, the Buddha's teachings on loving-kindness and compassion were translated into action, setting an enduring example for followers to practice empathy, kindness, and selfless service towards those in need.

Medieval Period

It appears that hospitals may have been present beginning in the sixth century BC, coinciding with the era of Buddha, to take care of the handicapped and the poor who were sick and needed medical attention[107]. A number of sources also claim[108] that King Ashok the Great (273–232 BC), grandson of Chandragupta Maurya, the greatest king during the Mauryan dynasty, the dynasty that ruled most of the Indian subcontinent in the 3rd century BC, who converted to Buddhism in the prime of his life, was responsible for building some of the oldest and most 'spectacular' hospitals in India[109].

The claim that King Ashoka the Great was responsible for building some of the oldest and most "spectacular" hospitals in India is based on several historical sources and inscriptions. However, the sources that claim this are neither clear nor consistent. The primary sources that may help support this claim include:

1. Ashokan Pillars and Rock Edicts: Ashoka's Edicts, found on pillars and rocks across his empire, are vital historical records of his reign. While not explicitly using the term "hospital," they detail his commitment to social welfare, including the provision of healthcare for humans and animals. One notable reference is the 2nd Pillar Edict, where King Ashoka discusses his efforts to ensure medical treatment for all, along with the widespread distribution of herbal medicines in his realm [110].

2. Buddhist Texts: Buddhist texts and scriptures, such as the Ashokavadana and Divyavadana, also mention King Ashoka's philanthropic activities, including the

[107] Dr. Syed Amin Tabish (2000), 'Health Planning: Past, Present & Future ' in Dr. Syed Amin Tabish (ed.), Hospital & Health Services Administration: Principles & Practice,New Delhi: Oxford University Press ,p.23

[108] Various secondary sources claim that many hospitals were built by King Ashok, but the sources did not cite their primary sources.See https://theprint.in/pageturner/excerpt/king-ashokas-hospitals-to-rural-health-mission-how-the-indian-medical-system-evolved/746649/n , https://aeon.co/essays/ashokas-ethical-infrastructure-is-carved-into-indias-rocks etc., See also, https://en.wikipedia.org/wiki/History_of_hospitals#India_&_East_Asia

[109] Dr. Syed Amin Tabish (2000), Op.Cit.p.23

[110] https://theprint.in/pageturner/excerpt/king-ashokas-hospitals-to-rural-health-mission-how-the-indian-medical-system-evolved/746649/ viewed on 26.11.22

construction of hospitals and medical centres. Buddhist texts are another source of information about Ashoka, but they are not very historical or objective. They tend to glorify Ashoka as a great Buddhist king who did many meritorious deeds, such as building stupas, sending missionaries, donating towards the sangha, and possibly even persecuting non-Buddhists. Some of these texts state that Ashoka constructed hospitals for both humans and animals and appointed medical professionals, including doctors and nurses, to care for their well-being[111]. These texts were written later, but they drew upon earlier traditions and historical accounts.

3. Archaeological Findings: Archaeological excavations at various sites associated with the Mauryan period have revealed structures that are believed to have been hospitals or medical facilities. Although direct evidence linking them to King Ashoka is scarce, the context and timeframe suggest that they might have been part of his initiatives.

4. Foreign accounts are the third type of source that mentions Ashoka and his hospitals, but they are also not very reliable or accurate. They are mostly based on hearsay or second-hand information and may have confused or distorted the facts. For example, the Greek writer Megasthenes visited India during the reign of Chandragupta Maurya, Ashoka's grandfather, and wrote a book called Indica. In this book, he mentions that there were hospitals in India where skilled physicians treated various diseases[112]. However, Megasthenes never met Ashoka or saw his inscriptions, and his account may have been influenced by his own Greek culture or by other sources. Similarly, the Chinese pilgrim Fa-Hien visited India in the 5th century CE, long after Ashoka's death, and wrote a travelogue called *A Record of Buddhistic Kingdoms*. In this book, he mentions that there were hospitals in India where monks and laypeople received free medical care. However, Fa-Hien never mentions Ashoka by name or refers to his inscriptions, and his account may have been based on Buddhist legends or local traditions.

While these sources provide strong indications of Ashoka's efforts in building hospitals and medical facilities, it is difficult to say with certainty that Ashoka built

[111] https://en.wikipedia.org/wiki/Ashoka viewed on 26.11.22
[112] https://www.nationalgeographic.com/culture/article/ashoka viewed on 26.11.22

some of the oldest and most spectacular hospitals in India. There is a lack of conclusive evidence regarding the existence of hospitals in ancient India during the 3rd century BCE, as well as any direct attribution to Ashoka for commissioning their construction. The sources that claim this are either vague, biased, or unreliable. It is possible that Ashoka did provide some form of medical care for his subjects, but it is unlikely that he had large-scale hospitals as we know them today. Historical records from ancient times can sometimes be fragmentary, and interpretations may vary. The lack of detailed descriptions or specific names of hospitals in the sources makes it challenging to pinpoint individual institutions with absolute certainty.

However, the cumulative evidence from inscriptions, Buddhist texts, and archaeological findings strongly suggests that King Ashoka, as a patron of Buddhism and advocate of compassionate governance, made significant contributions to the development of medical facilities and hospitals in ancient India. His reign is widely recognized for its emphasis on social welfare and the promotion of well-being, which included measures to support healthcare and provide medical aid to his subjects.

The arrival of Muslims in India brought about significant transformations in diverse domains, encompassing not only the socio-political sphere but also education and medicine. The Muslim rulers served as benefactors of education and healthcare. The inception of the inaugural Unani medicine centre in South Asia occurred in Lahore circa 1160 A.D. with the support of the Ghaznavide monarchs[113]. Unani Medicine is a traditional medical system that is commonly practiced in Middle Eastern and South-Asian countries. It is rooted in the Graeco-Arabic tradition of medicine, which draws from the teachings of Hippocrates and Galen, ancient Greek and Roman physicians, respectively. This system of medicine was further developed by Arabian and Persian physicians during the Middle Ages, and has since evolved into a complex medical system. Unani Medicine is primarily composed of herbal, animal, and mineral-based remedies, with approximately 90 percent of treatments being herbal in nature, 4-5 percent being animal-based, and 5-6 percent being mineral-based[114]. Unani is an

[113] See Tazimuddin Siddiqi,(1978) "Unani Medicine in India during the Delhi Sultanate", Studies in History of Medicine, Vol. 2, no.3, 1978, pp.183-89
[114] See https://www.nhp.gov.in/unani_mty viewed on 12.10.2021

elaborate science of medicine that deals with various health issues, diseases, and healthcare and touches upon all aspects of healthcare -promotive, preventive, curative, and rehabilitative. Throughout its history, Unani medicine has maintained a close association with Muslim societies[115].

The court of the earlier Delhi Sultanate was a center of culture and learning when it was in power, drawing artists, thinkers, and scholars from all over the world. This contributed significantly to the flourishing literary scene of the era[116]. The individuals who instructed and were involved in the realm of Unani medicine were commonly referred to as Hakims who held a prominent position in the Sultanate's society. They were highly respected for their expertise in using herbs, minerals, and natural substances to treat various ailments. Their medical knowledge was deeply rooted in the ancient Greek, Persian, and Arabic traditions, and they brought valuable insights into the court's medical practices, they functioned side by side with vaidyas or practitioners of Ayurveda mostly complementing and borrowing from each other in the area of healthcare.

Despite the distinct origins and approaches of Unani and Ayurveda, these two medical systems found common ground in the quest for healing and alleviating suffering. The practitioners of both traditions recognized the value of each other's knowledge and freely shared ideas, techniques, and treatments. This open exchange resulted in a rich fusion of medical practices, contributing to the advancement of healthcare in the region. There seemed to exist no animosity or competition between the practitioners of Ayurveda and Unani. This trend was encouraged by Muslim rulers. Emperor Akbar, in particular, played a pivotal role in fostering an environment of cooperation and collaboration between the two systems. His liberal policies and inclusive outlook encouraged scholars and intellectuals of different backgrounds to work together harmoniously[117]. The waning of Muslim hegemony ensued subsequent to the Portuguese annexation of Goa in 1510[118].

---

[115] Kira. Schmidt-Stiedenroth,(2020) "Unani Medicine and Muslims in India". *Unani Medicine in the Making: Practices and Representations in 21st-century India*, Amsterdam: Amsterdam University Press, pp. 227 https://doi.org/10.1515/9789048544431-008

[116] https://www.researchgate.net/publication/335854661_Insights_on_Imparting_Medical_Education_in_Medieval_India viewed on 12.10.2021

[117] See Dr. Syed Amin Tabish (2000).Op.Cit.p.23

[118] Ibid

As colonial influence spread, the dynamics of power and cultural interactions changed, impacting traditional practices and knowledge systems. Despite the challenges that followed, the legacy of the Delhi Sultanate's flourishing cultural and medical scene endured. Ayurveda and Unani medicine continued to coexist, influencing each other and remaining integral to the region's healthcare practices. Today, both systems remain relevant and continue to be practiced, preserving the wisdom and contributions of the past. The spirit of collaboration and openness that once characterized the Delhi Sultanate's medical landscape remains a valuable lesson in embracing diversity and promoting holistic approaches to healthcare.

ADVENT OF CHRISTIANITY AND IMPACT ON HEALTHCARE

Based on the accounts of Arabian and European travellers, the study of medicine in India experienced significant growth around AD 600[119]. During this period, indigenous medical traditions like Ayurveda and Unani were well-established and flourishing, with practitioners passing down their knowledge through generations. At the beginning of the 16th century, when the first European missionaries arrived in India, allopathic system of medicine began to gain traction. The European missionaries brought with them knowledge of Western medical practices, which started to blend with the existing indigenous systems. This exchange of medical knowledge led to a gradual integration of allopathic principles into the traditional healthcare practices of India. Notably, the 19th century saw a significant advancement in the organization and formalization of medical training in India. British colonial influence played a crucial role in shaping the contemporary medical education system within the nation. Through the founding of medical institutions and institutions, a more structured and standardized approach to medical education was introduced. British authorities, recognizing the need for trained medical professionals to address health challenges in India, initiated the formation of medical schools and hospitals across the country. These institutions provided Western-style medical education to Indian students, combining elements of allopathic medicine with traditional healing practices.

The preceding paragraphs outline India's longstanding tradition of comprehending health, illness, and medical intervention in the context of a holistic

[123] Ibid

approach through conventional medicinal systems such as Yoga, Ayurveda, and subsequently, Unani and the Buddhist approach of avoiding extremes by adhering to the middle path. The conception of disease and its causation, both communicable and non-communicable- is in many ways lifestyle-related and hence, considered more natural, practical, and perhaps superior to the allopathic system of conception of health where treatment is largely symptomatic- more focussed on cure and treatment rather than on prevention[120]. The traditional way of understanding health and medical treatment was based on prevention through practicing a healthy lifestyle, using natural, non-invasive safe, and age-old tried and trusted remedies rather than trying to cure diseases after symptoms had manifested. Traditional health practices were imbibed into everyday living, so much so that it had become a way of life. The treatments for common ailments like the common cold, headaches, inflammation, etc., were all-natural remedies and were found in most Indian kitchens, hence, inexpensive, effective, and had few side effects.

The Portuguese introduced modern healthcare and medicine to India in the 16th century[121]. A hospital called 'Santa Cruz' meaning Holy Cross was first built by the Portuguese at Cochin in 1506 and treatment was given to the sick. The hospital was equipped with the necessary staff including a surgeon and a physician[122]. Subsequent to the establishment of this hospital, similar medical facilities were established at Portuguese settlements located in Cananore, Chaul, and Goa.The Hospital Real, located in Goa, served as a pioneer in the fields of healthcare and education in the region[123]. The Hospital administration was carried out by the Jesuit priest who functioned as the Director. The grandeur of the Hospital Real was evident in its majestic one-story building, adorned with tall windows that allowed ample natural light to filter in. Surrounding the hospital were beautiful gardens and well-

---

[120] See K.S. Rao (2017), '*Do we care? India's Health Care System'*, New Delhi: Oxford University Press.p.7

[121] Anshu. and A Supe.(2016), "Evolution of medical education in India: The impact of colonialism." *Journal of postgraduate medicine* vol. 62,4 :255-259. doi:10.4103/0022-3859.191011.p.255

[122] See Lourdes Bravo Da Costa (1987) " Medical conditions in Goa of 16th and 17th Centuries: A study of foreign travelogues" in Bull. Ind. lnsr , Hist, Med. Vol. XVII. p.59 http://ccras.nic.in/sites/default/files/viewpdf/jimh/BIIHM_1987/57 percent20to percent2068.pdf

[123] Ibid

manicured lawns, creating an ambiance that resembled a palace more than a traditional medical facility.

The Hospital Real was renowned for its emphasis on cleanliness, hygiene, and proper maintenance. The staff took great care to ensure the hospital's facilities were in impeccable condition, fostering an environment conducive to healing and recovery. This dedication to maintaining high standards contributed to the hospital's reputation as a leading healthcare institution. At the Hospital Real, the administration introduced a modern system of medicine that drew parallels to the medical practices followed in Spain, the home country of the Jesuit order. This approach incorporated the latest medical knowledge and techniques of the time, providing patients with advanced and progressive treatments. The hospital's integration of modern medical practices, combined with its commitment to cleanliness and well-maintained surroundings, earned it a place of prestige in Goa's healthcare landscape. The Hospital Real played a crucial role in advancing medical knowledge, offering quality healthcare services, and contributing to the dissemination of medical education.

Although the hospital introduced modern system of medicine, similar to that of what was practised in Spain[124] and seemed to be an integration of medical knowledge from Eastern and Western traditions., contrary to some accounts, there are records that show that there was no rejection of traditional medicines already practised in India. In fact, there are accounts that tell of physicians themselves who successfully used the indigenous native treatment after they had used modern treatment to no avail[125]. The Hindu native physicians also used foreign syrups and medicines and other prescriptions without much hesitation[126].

The Portuguese are credited with introducing the modern medical system and administrative practices to India. Following their arrival, the East India Company, along with the Colonial British administration, further promoted allopathic medical techniques among the somewhat reluctant Indian population. The initial influx of medical officials accompanied the first fleet of ships dispatched in 1600 by the East

[124] Ibid
[125] Ibid, p.61
[126] Ibid, p.66

India Company, signifying the beginning of modern healthcare in the country[127]. Portuguese influence in India, particularly in regions like Goa and Bombay, had a notable impact in introducing European methods of medical treatment in the subcontinent. They arrived bearing the wealth of Western medical knowledge and expertise, thereby fostering the intercultural exchange of medical ideas.

As European powers established their presence in the Indian sub-continent, they also brought advancements in medical science. British colonial administrators recognized the need for a standardized healthcare system in order to address the health requirements of its staff and the surrounding community. Consequently, they introduced and enforced allopathic medical techniques, which were the prevailing medical practices in Europe at that time. Medical officials and practitioners were among the first European settlers to arrive in India alongside the East India Company's fleet. Their presence marked the beginning of a gradual shift towards the modernization of healthcare practices in the country. The British administrators established hospitals and medical facilities to provide healthcare for their employees and the local population.

Over time, British colonial rule led to the expansion and formalization of the allopathic medical system in India. Medical colleges were established to train Indian students in Western medical science. This paved the way for a new generation of Indian doctors who were well-versed in allopathic principles and techniques. While the introduction of modern healthcare in India brought about advancements and improvements in medical practices, it also sparked debates and discussions about the compatibility and appropriateness of Western medicine with traditional Indian healing systems like Ayurveda and Unani.

In 1764, a medical department was founded in Bengal, which consisted of four principal surgeons, eight assistant doctors of surgery, and twenty-eight surgeon's assistants[128]. This department marked a significant step in the formalization and organization of medical services throughout the period of British colonial authority in

[127] Anshu. and A Supe.(2016), Op.Cit.p.255

[128] Muhammad Umair Mushtaq. (2009) “Public health in British India: A brief account of the history of medical services and disease prevention in colonial India.” Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine vol. 34,1 (2009): 6-14. doi:10.4103/0970-0218.45369

India. The primary objective of establishing the medical department was to improve healthcare services for both the troops of the British East India Company and the local community. By having a structured team of medical professionals, the department aimed to provide better medical care and cater to the healthcare requirements of the growing colonial presence within the area. The effort was a component of the broader efforts to introduce and promote modern medical practices in India and create a more standardized healthcare system. The medical department in Bengal had an important impact in influencing the progress of medical services in the nation, hence facilitating subsequent developments in healthcare throughout the era of British colonial control. In 1785, medical departments were established in the Presidencies, each equipped with a total of 234 surgeons[129]. The establishment of these departments wasprimarily driven by the aim of providing medical care and treatment to the personnel and military forces affiliated with the British East India Company. The beginning of these medical departments was a crucial step towards formalizing and improving healthcare services throughout the era of British colonial authority in India. To further streamline and manage the medical facilities, boards for the hospitals were subsequently set up in each presidency in 1775. These boards played an essential role in overseeing the functioning of the hospitals and ensuring the smooth delivery of medical services. The establishment of the medical departments and the subsequent formation of hospital boards marked significant progress in the development of a structured and standardized healthcare system in India.

The British colonial administration's focus on medical infrastructure was driven by the acknowledgment of the significance of upholding the physical and mental wellness of both its workforce and the surrounding community. Through these initiatives, the British sought toenhance the medical capabilities in India and provide comprehensive healthcare tosupport the expanding colonial presence in the region. As a result, the medical departments and hospital boards laid the groundwork for further advancements inmedical practices and set the foundation for a more systematic approach to healthcare in India during the British colonial period.

[129] Anshu. and A Supe. (2016), Op.Cit.p.255

After the occurrence of the Sepoy Mutiny in 1857, which is sometimes referred to as the Indian Rebellion or the First War of Independence, the British East India Company faced severe repercussions. The uprising, which originated among Indian soldiers (sepoys) in the Company's army, was a significant challenge to British colonial rule in India. The Company's mismanagement, cultural insensitivity, and perceived attempts to undermine Indian religious and cultural practices fuelled the discontent among Indian soldiers and civilians alike. In the aftermath of the rebellion, the British Parliament conducted an extensive inquiry into the causes and consequences of the uprising. The findings resulted in the closure of the British East India Company in 1858, effectively ending its reign of power in India. Subsequently, the British government took direct control over India, and the country became a colony of the British Crown.

The period following the dissolution of the Company marked the establishment of direct British colonial administration in India. The British Crown assumed the governance of India through the nomination of a British Cabinet member as Secretary of State for India. The Secretary of State was responsible for overseeing the administration of India and reporting to the British Parliament. To implement direct rule effectively, the Viceroy of India was appointed as the Crown's representative and head of government in India. The Viceroy represented the British Crown and exercised executive authority on its behalf. The Viceroy was assisted by a council of advisers, both Indian and British, known as the Viceroy's Executive Council, in the governance and administration of the country.

The new colonial administration aimed to consolidate British control over India and ensure stability and efficiency in governance. Various administrative reforms were initiated to address the grievances that had contributed to the Sepoy Mutiny. The administration sought to balance the interests of British imperial rule with the preservation of Indian cultural and religious practices. During this period, India underwent significant social, economic, and political changes. The colonial administration implemented policies that shaped the modernization of India, including the expansion of infrastructure, the introduction of a modern legal system, and advancements in education and healthcare. However, these reforms were often met

with mixed reactions from the Indian population, with some embracing the changes and others perceiving them as further imposition of foreign rule.

In 1868, the medical departments of the Bengal, Madras, and Bombay presidencies merged to form the Indian Medical Service[130]. The Army Medical Department used to be referred to as the Royal Army Medical Corps, administered medical care to the Royal Indian Army personnel. A series of reforms were implemented which resulted in the transfer of responsibilities for health from the federal government to the provinces. The Act of 1935 facilitated the decentralization of additional powers to provincial governments.

General Hospital of Madras, the first modern hospital was set up by the Britishers in 1664 as a military health facility in the precincts of Fort St. George[131]. Commencing with the establishment of Madras General Hospital in 1679, a number of additional hospitals were founded in Madras during the period spanning from 1800 to 1820[132]. Presidency General Hospital, Calcutta was formed in 1796[133]. Calcutta's Medical College Hospital first opened in 1852[134]. King Edward Medical College (formerly called Lahore Medical School) was founded in 1860 in Lahore, Punjab[135]. A network of hospitals was quickly created in the years that followed. In 1880, the Imperial government of India oversaw over 1,200 public hospitals and clinics; by 1902, that number had increased to almost 2,500[136]. In 1902, one hospital served a population of 330 square miles[137].

In 1822, medical training and instruction began when the first teaching facility in Calcutta was created, and Indian pupils started receiving instruction in the local dialect[138].The first superintendent of NMI was John Tyler[139].Classes on indigenous medicine – both Unani and Ayurveda-were conducted in 1826 at Calcutta Madrasa

[130] Ibid
[131]https://researchoutput.csu.edu.au/files/20467667/9000311_Published_article_OA.pdf
[132] Mushtaq MU.(2009)Public Health in British India: A brief account of the history of medical services and disease prevention in colonial India. Indian J Community Med [serial online] 2009 [cited 2022 Feb 8];34:6-14. Available from: https://www.ijcm.org.in/text.asp?2009/34/1/6/45369
[133] Ibid
[134] Ibid
[135] Ibid
[136] Ibid
[137] Ibid
[138] See Anshu. and A Supe.(2016), Op.Cit.p.255
[139] Ibid

and Sanskrit College, respectively[140]. Thus, parallel instructions were given in both western and indigenous medicine in the native language.

In 1826, a medical school was established in Southern Bombay under John McLennan's leadership, aiming to provide Indians with access to education and training in Western medicine. However, the educational institution in question had a limited operational period of no more than six years[141].

During the 1830s, individuals such as Charles Trevelyan who strongly advocated for Westernization, made attempts to discontinue the British practice of delivering healthcare training in Eastern languages and cultures. Instead, Trevelyan suggested "Asiatics" may receive education in Western sciences. Lord William Bentinck, in 1833, established a committee with the purpose of investigating the condition of medical education in Bengal, as well as the instruction of native medicinal practices[142]. The subsequent report sanctioned the establishment of medical colleges for the purpose of educating indigenous individuals in the diverse fields of medical science, similar to those taught in Europe. During the month of February in the year 1835, Thomas Macaulay authored a compelling memorandum advising the government to refrain from providing additional funding to establishments that offer education in indigenous languages[143]. The event marked a significant shift away from the endorsement of traditional forms of medicine by the ruling authorities, ultimately leading to the dissolution of the Native Medical Institution.

The year 1835 saw the establishment of Bengal Medical School in Calcutta. The school aimed at providing Indian students with training that aligned with the European model of education, delivered in the English language. This development opened a new era in the nation's medical education. Students, aged between 14 and 20, were imparted training in Western medicines for a period between four to six years before they could appear for a concluding exam . Certification was granted to successful candidates, qualifying them to practice surgical as well as medical

[140] Ibid
[141] Ibid
[142] Ibid
[143] Ibid

techniques[144].The products of the first medical college were called 'native doctors' and started their careers in the government service. A school of medicine was inaugurated in Madras in the year 1935[145]. This event occurred within a few days of another significant occurrence in the same year[146]. The curriculum was originally designed as a biennial programme, encompassing four core disciplines.

It was largely the efforts of Governor Sir Robert Grant, in Bombay, who envisaged training Indians in Western medicine despite strong opposition, that led to the establishment of a medical college. After a generous contribution was received from philanthropist Sir Jamsetjee Jeejebhoy[147] in March 1838. On July 18, 1838, the suggestion to establish a college of medicine was approved.

Goa Medical College, which is currently in operation, traces its origins back to 1840 [148]. It is noteworthy to mention that Madras Medical College holds the distinction of being the inaugural medical college in India to extend admission to female students in 1875[149]. Despite this, the number of medical practitioners trained in Western medicine was only 450 out of 8000 in 1877. The remaining medical professionals were practitioners of traditional, indigenous medical systems[150].

As the British colonial administration expanded its reach throughout the nation, the setting up of dispensaries was encouraged at the district and sub-district levels. Most hospitals in the provinces were converted into teaching hospitals to provide training to the natives in healthcare and these were mostly attached to the medical colleges that had been established earlier. According to historical records, the number of health facilities in 1885 amounted to 1250[151]. The pace of advancement was gradual, and as the nation approached independence, there existed a total of 7,400 hospitals and dispensaries, providing 113,000 beds [152]. At that particular juncture, the

---

[144] Ibid
[145]https://researchoutput.csu.edu.au/ws/portalfiles/portal/20467667/9000311_Published_article_OA.pdf
[146] Anshu. and A Supe.(2016), Op.Cit.
[147] The general hospital which was opened in 1845 is now named after him and is now known as the Sir JJ Hospital.
[148] L, Rajgopal et al.(2002), "History of Anatomy in India", J Postgrad Med,48:243-5.
[149] Conrad L., Hardy A, (2001) Women and Modern Medicine, Amsterdam: Editions Rodopi B.V.
[150] A.(Kumar 1998), Medicine and the Raj: British Medical Policy in India,New Delhi,Sage Publication.
[151]https://www.researchgate.net/publication/290447383_Historical_Development_of_Health_Care_in_India viewed on 09.02.22
[152] Ibid

nation boasted a total of 47,000 physicians and 7,000 registered nurses, as well as 19 institutions of higher learning dedicated to the study of medicine, and 28 establishments specifically designated as medical colleges[153].

The Alma Ata Declaration

Throughout history, the significance of well-being as an indicator of societal variables has been acknowledged. However, it was not until 1978 that this recognition was institutionalized into policy[154]. The Declaration, which was signed in 1978 by all 134 WHO members, established Primary Health Care as the organization's official position. The Declaration gave a wider impetus to the concept of Health as not merely confined to 'doctors and hospitals' but to political and socio-political determinants-health being a human right. The Alma Ata Declaration posits that states have a responsibility to ensure the well-being of their citizens, that by enacting suitable health and social policies, the desired outcomes can be achieved. This statement emphasizes the importance of individual and collective participation. It suggests the idea that people not only have a right but also a duty to be involved in decisions related to their healthcare[155] thereby reiterating that people do not only have the right to participate but also that it is their duty to do so, in process of planning and implementing healthcare services.

The Declaration was created during a time when the global atmosphere was heavily influenced by the aftermath of World War II and the widespread destruction it caused. The establishment of the United Nations was a result of the global community's dedication to addressing the inequalities that existed before the war and their pursuit of fairness and equality[156].

The Bhore Committee was founded by the Government of India in 1943 previous to the Alma Ata Declaration. This committee, led by Sir Joseph Bhore and consisting of nineteen additional members, was tasked with conducting a complete

[153] Ibid.

[154] S. B. Rifkin (2018), 'Alma Ata after 40 years: Primary Health Care and Health for All-from Consensus to Complexity', *BMJ Global Health*, *3*(Suppl 3), e001188. https://doi.org/10.1136/bmjgh-2018-001188

[155] World Health Organization *Primary Health Care: Report of the International Conference on Primary Health Care Alma Ata, USSR, 6–12 September 1978*. Geneva, Switzerland, 1978.

[156] United Nations General Assembly , 1974. Resolution adopted by the General Assembly 3201 (S-VI): declaration on the establishment of a new international economic order. Available from: http://www.un-documents.net/s6r3201

evaluation of the health and developmental aspects of the nation. The Bhore Committee was established with the aim of conducting a thorough and all-encompassing health assessment to facilitate the progress of the entire nation. The report submitted in 1946 contained recommendations for restructuring health administration in India, with a particular emphasis on child and maternal health care.

The report, which was presented in 1946, contained extensive proposals for the restructuring of healthcare management in India, with a particular emphasis on child and maternal healthcare.

1. The amalgamation of both curative and preventive services across all levels of administration.

2. The implementation of primary healthcare centres occurred in two distinct stages.

a).A potential short-term solution involves the establishment of a single primary healthcare facility catering to a populace of approximately 40,000 individuals. The concept of a secondary health centre was conceived to offer assistance to primary health centres (PHCs) and to oversee and manage their operations.

b).The proposed initiative, commonly referred to as the 3 million plan, entails the establishment of primary care clinics with 75-bed facilities to serve populations of between 10,000 and 20,000. In addition, there were plans to establish secondary units that would include 650-bed hospitals. These units would be regionally centralized around district hospitals, which would have 2500 beds. The programme was intentionally designed to have a long-term focus.

3. One notable development in medical education involves the implementation of a training programme of three months aimed at equipping medical professionals with the necessary skills to become "social physicians."

According to the Bhore Committee Report, it was recommended that India should prioritize the rural areas with significant community involvement. Additionally, the report suggested that a primary healthcare model may be implemented, which is based on the principle of ensuring that individuals are not prevented from accessing healthcare services due to their inability to pay. This is the

sole genuine documentation that portrays the progression of hospitals and healthcare infrastructure in India prior to its independence in 1947[157].

During this time in India's healthcare and health administration history, some significant landmark decisions were made. Those that are more significant are:

1. A Royal Commission was established in 1859 to investigate the army's health in India.

2. A Plague Commission was established following the outbreak of the disease in 1896, and it delivered its findings in 1904.

3. The GOI Act of 1919 and the changes made in the field of health, including the statutory authorization to decentralize the administration of healthcare services to be provided by provinces., including hospital management and medical management.

4. The GOI Act of 1935 and the health reforms and the increased power given to regional legislatures[158].

The responsibility for supervising health administration in the provinces was under the jurisdiction of the minister responsible for health. In this capacity, the minister was responsible for coordinating and supervising various health-related activities throughout the country. Supporting the minister were two key technical health advisers: the Surgeon General, who held authority over the hospitals, and the other who managed the public health departments. Together, they provided specialized expertise and guidance to the minister, enabling a well-rounded and effective approach to healthcare management and public health initiatives. This structured hierarchy ensured that health matters were efficiently addressed and managed at both the provincial and national levels, contributing to the overall well-being of the population. Healthcare within their respective areas of control was overseen by the local administration. The responsibility of managing health services fell under the jurisdiction of the district boards, which were responsible for establishing local government in non-municipal regions. These district boards played a crucial role in ensuring that healthcare needs were addressed at the grassroots level. By decentralizing healthcare management to the local level, the system aimed to cater to the specific health challenges and requirements of each district, fostering a more

[157] See Dr. Syed Amin Tabish (2000), Op.Cit. p.23
[158] Ibid

effective and responsive approach to healthcare delivery. This decentralized structure facilitated better coordination between local authorities, healthcare professionals, and the community, resulting in improved healthcare outcomes and greater accessibility to essential medical services for the population[159]. The authority granted to these agencies in relation to health issues includes control over general cleanliness, the prevention of infectious diseases, the sanitization of food sources, etc. Hospital treatment was mostly reserved for army troops during the British era, while public health was limited to bigger towns' cleanliness and hygiene efforts[160].

India's journey in health planning commenced after gaining independence in 1947. In pursuit of equitable and effective resource utilization for the country's development, the Planning Commission was instituted in 1950. The committee was given the task of developing comprehensive strategies to guide the advancement of the nation. One of the earliest and most significant rural development initiatives was the Community Development Programme (CDP) of 1952. This programme was designed as a multifaceted approach to address various aspects of community development across India. One of the key objectives of the CDP was to create primary health centres and sub-centres, which are crucial healthcare institutions designed to cater to the healthcare requirements of the local people.

The primary healthcare facilities and sub-centres were not only focused on providing affordable healthcare but also aimed to encourage community involvement in health initiatives. In addition to medical services, the programme prioritized basic sanitation and public health measures to promote overall well-being. By integrating health services with community participation, the CDP sought to ensure that healthcare reached every corner of the nation and catered to the specific needs of local communities. This approach laid the foundation for India's evolving health planning framework, fostering a holistic and inclusive approach to healthcare that has continued to evolve over the years.

The Bhore Committee's recommendations were groundbreaking and commendable as they aimed to establish a primary care system based on the principle of universal access to medical treatment, regardless of one's abilities. In 1948, the

[159] Ibid
[160] Ibid

Sokhey Committee also presented its suggestions, which were subsequently accepted. Both of these studies played a significant role in shaping India's healthcare policies. As per the Bhore Committee's proposals, the goal was to ensure that every 140,000 rural individuals would be provided with access to a primary care facility by the conclusion of the second stage. Additionally, the Committee advocated the establishment of one hospital for every 320,000 rural residents[161]. These measures were intended to bring healthcare services more proximate to the populace, particularly in rural regions, and enhance overall health outcomes for the population. The emphasis on primary care and the establishment of accessible medical facilities aligned with the Bhore Committee's vision of a comprehensive healthcare system that prioritized preventive and community-based healthcare services. This approach was pivotal in making healthcare services more inclusive and effective, addressing the healthcare requirements of all individuals, irrespective of their socioeconomic standing or geographical location.

The acceptance of the Bhore Committee and Sokhey Committee's recommendations marked a significant step towards the evolution of India's healthcare infrastructure and the adoption of a more equitable and people-centric approach to healthcare delivery. These recommendations continue to influence healthcare policies in India, shaping efforts to improve healthcare access and quality for all segments of the population. In contrast, in metropolitan areas, the number of hospitals per resident was 1:36,000, and the ratio of hospital beds to the population was 1:440. These figures highlight notable health disparities that demand careful scrutiny and addressing. The significant differences in healthcare infrastructure between rural and urban regions underscore the need for targeted interventions to ensure fair and equal availability of healthcare services for every sector of the population. Such disparities require urgent attention to bridge the healthcare gap and promote inclusive healthcare delivery in both rural and urban areas[162].

The Mudaliar Committee was founded by the government in 1959 when the Second Plan came to an end. The group was entrusted with reviewing medical progress

[161] A.Grover & R.B.Singh (2019). Health Policy, Programme and Initiatives. Urban Health and Wellbeing: Indian Case Studies, 251–266. https://doi.org/10.1007/978-981-13-6671-0_8

[162]Ibid.

since the Bhore Report. Its objective was to provide recommendations for the purpose of planning and developing the healthcare system in the country. The Mudaliar Committee's report was submitted 15 years subsequent to the Bhore Committee's report. The committee report put forth significant proposals, including the restriction of the population served by PHCs and the enhancement of service quality[163].

During the Third Five Year Plan, there was a proposal to establish medical colleges, research institutes, and training centres for healthcare professionals such as doctors, nurses, and auxiliary staff. Additionally, there was a strong emphasis on family planning during this period, resulting in the establishment of a distinct department under the Ministry of Health to oversee these efforts. In 1969, the Fourth Plan was introduced, which sustained the preceding themes and endeavours.

The Jungalwalla Committee suggested a comprehensive system-wide approach to integrating healthcare facilities, administration, and staff in 1967[164]. The standards for health workers were established in 1973 by the Kartar Singh Committee[165]. The Shrivastav Committee (1975) proposed developing a referral complex by linking PHCs with other levels of healthcare[166].

The Fifth Five-Year Plan holds great importance in the field of healthcare as it sheds light on the widening gap in health indicators between rural and urban areas. Recognizing the urgent need to address this disparity, the Minimum Needs Programme was emphasized as a crucial initiative to extend healthcare services to rural communities. As part of this programme, various strategies were employed, such as training community health workers, reorienting multifunctional employees, and fostering collaborations between medical schools and rural health centres. The Rural Health Scheme, launched in 1977, encompassed these essential components and aimed to improve healthcare accessibility and delivery in remote and underserved regions[167].

The Rural Health Scheme was designed to bridge the healthcare divide by empowering local communities and building a skilled healthcare workforce.

---

[163] HT Pandve ,TK Pandve (2013), Primary healthcare system in India: Evolution and challenges. Int J Health Syst Disaster Manage [serial online] 2013 [cited 2022 Mar 6];1:125-8. Available from: https://www.ijhsdm.org/text.asp?2013/1/3/125/129126 viewed on 6.03.22

[164] Ibid.

[165] Ibid.

[166] Ibid.

[167] Ibid.

Community health workers were trained to provide primary care services and health education in rural areas, bolstering the provision of vital medical services at the local community level. The reorientation of multifunctional employees helped enhance their capacity to address healthcare needs effectively. Additionally, establishing ties between medical schools and rural health centres facilitated knowledge exchange, research collaboration, and improved medical support in remote regions. By combining these strategies, the Rural Health Scheme sought to strengthen rural healthcare infrastructure and reduce the disparities in health outcomes between rural and urban populations, making healthcare more inclusive and accessible for all. The "Village Health Guide" programme was implemented to encourage community involvement in healthcare through the use of community health volunteers[168].

The international proclamation of achieving "Universal Health Care by the year 2000 A.D." had a significant influence on the formulation of the Sixth Five Year Plan[169]. The sixth and seventh plans proposed numerous radical measures; however, the implementation of these measures was limited[170].

Following the Alma Ata Declaration, the Indian government has undertaken numerous noteworthy initiatives, unequivocally expressing its commitment to the pursuit of universal healthcare access for all its citizens. In order to ensure that all people and communities have access to basic healthcare services by the year 2000, the Alma Ata Declaration, which was adopted in 1978, urged countries all over the globe to emphasize primary healthcare as the cornerstone of their health systems. In response to this global call for action, to improve the availability, affordability, and calibre of healthcare services throughout the country, the Indian government has launched a number of extensive initiatives. These initiatives demonstrate a purposeful and concerted effort to bridge the gaps in healthcare delivery, ensuring that no individual is left behind in their quest for medical care

In adherence to the Alma Ata Declaration, India formulated its inaugural national health policy in 1983, with the primary aim of providing comprehensive primary healthcare services to the entire populace. The Seventh Five-Year Plan

[168] Ibid.
[169] A.Grover & R.B.Singh (2019). Op.Cit.
[170]Ibid

prioritized urgent health concerns such as cardiovascular diseases, cancers and AIDS by establishing highly specialized facilities[171]. The Eighth Five Year Plan prioritized healthcare of individuals who are socioeconomically disadvantaged, although it exhibited a preference for a selective healthcare approach[172]. The Bhore Committee and other notable recommendations are used as a foundation for the ninth plan, which also includes some novel ideas. These include developing state-driven techniques, combining health education and health care, providing primary healthcare in poor neighbourhoods, integrating programmes horizontally and vertically, and improving disease tracking. In addition, the strategy highlights the need for a new Health Policy for low-income people[173].

In 2002, the Second Policy on Health was released, with the goal of allocating a greater proportion of overall health expenditure to primary care [174]. The inception of the National Rural Health Mission on April 12th, 2005 marked a significant milestone in the pursuit of equitable, economically viable, and superior healthcare provisions for the rural populace. This noble endeavour specifically prioritized the welfare of marginalized segments, including women, children, and individuals grappling with impoverished circumstances. The Empowered Action Group (EAG) States, in conjunction with the North Eastern States, Jammu and Kashmir, and Himachal Pradesh, have been bestowed with particular emphasis by the National Rural Health Mission (NRHM), which has allocated this prioritization to these states. This allocation of attention has been extended in conjunction with the North Eastern States[175]. The aim was the establishment of a comprehensive, decentralized health delivery system that is owned by the community and fully operational. This approach will guarantee that a wide variety of factors that determine health are addressed at the same time by including cross-sectoral convergence at all levels[176]. On the auspicious day of May 1st, 2013, the esteemed Union Cabinet, in its wisdom, granted its approval

[171]Ibid
[172]Ibid
[173]Ibid
[174] Origin and evolution of Primary health care in India. Available from: http://www.whoindia.org/LinkFiles/Health_Systems_Development_Primary_Health_Care_Origin_and_Evolution_.pdf. viewed on 6.03.22
[175] https://nhm.gov.in/index1.php?lang=1&level=1&lid=49&sublinkid=969 viewed on 6.03.22
[176] https://nhm.gov.in/index1.php?lang=1&level=1&lid=49&sublinkid=969 viewed on 6.03.22

for the diligent execution of the National Urban Health Mission, thus paving the way for its imminent implementation[177]. The prioritization of "inclusive growth" within the health sector was a paramount objective during the 11th five-year plan. Consequently, the National Rural Health Mission (NRHM) emerged as a recommended strategy to effectively deliver healthcare services to remote and underserved regions[178]. In the planning phase of the Twelfth Five Year Plan, public engagement was sought to achieve the objective of creating a Comprehensive Healthcare Package, achieving universal healthcare coverage, and assessing the sociocultural factors that influence people's health [179].

The National Health Policy 2017 was officially announced by the Ministry of Health and Family Welfare on March 15, 2017, which represents a noteworthy time span of nearly 15 years since the last national health policy. By taking both a preventative and a promotive stance toward healthcare, the strategy works toward making it possible for people of every age to realize their full potential in terms of their health.

Alongside National Health Programmes (NHPs), the government has intermittently initiated several additional initiatives that are directly related to enhancing citizens' overall health(See Table 3.2) and a number of National Health Missions(See Table 3.3), as also a host of programme on communicable diseases at the national level like the Programme on Leprosy Eradication, Nationwide TB Programme, Universal Immunization Programme to name a few; and on Non-Communicable Diseases(NCDs), injury, trauma, Sexually Transmitted Diseases, Cancer Control, Blindness Control, Mental Health to enumerate a limited selection of these programmes.

The Ayushman Bharat Abhiyan

The National Health Mission (NHM) is a prominent health programme in the country that primarily focuses on providing primary and secondary healthcare services. The primary aim of this initiative is to attain comprehensive and fully inclusive healthcare accessibility, characterized by affordability and superior standards. The programme's

[177] The National Health Mission | National Health Portal Of India (nhp.gov.in)
[178] See A.Grover & R.B.Singh (2019).Op.Cit.
[179] Ibid

overarching objective is to guarantee that healthcare services are responsible to the public and sensitive to their requirements. The establishment of the National Health Mission (NHM) aimed to offer support for reproductive and paediatric health services specifically targeting females (RCH services). Additionally, it sought to tackle the increasing incidence of communicable diseases such as tuberculosis (TB), human immunodeficiency virus (HIV), acquired immunodeficiency syndrome (AIDS), and vector-borne illnesses carried by mosquitoes during their initial stages of emergence. RCH services are intended to help females have healthy babies and healthy children. Insufficient attention was given to the escalation of disease burden and the mounting expenses associated with healthcare as a result of prolonged non- transmissible illnesses.

With the exception of childbirth, research has revealed that the general population utilizes the public healthcare system minimally for addressing the treatment of common ailments [180]. According to a statement made by the Indian government in 2018, a significant number of the population - exceeding six crores - were pushed into impoverishment each year due to expenses on medical care not covered by insurance[181]. The conspicuous and evident cause is the expansion of the private healthcare industry as major player catering to 75 percent out-patient and 62 percent in-patient care.

Table 3.1

Health Promotion Policies on a national level and in related areas

Implementing Year	**Health Policies**
1983	National Health Policy(NHP)
1992	National AIDS Control and Prevention Policy(NACPP)
1993	National Nutrition Policy(NNP)
1999	National Policy on Older Persons
2000	National Population Policy
Implementing Year	Policy
2001	National Policy for Empowerment of Women
2002	National Blood Policy
2002	National Policy on Indian System of Medicine and Homeopathy

[180] Key Indicators of Social Consumption in India on Health, National Sample Survey 71st Round, 2014, Ministry of Statistics and Programme Implementation, GOI

[181] "Medical Expenses Push 6 Crore Indians To Poverty Annually: Top Official". *NDTV*. Press Trust of India. 17 November 2018. Archived from the original on 17 November 2018.

Implementing Year	Health Policies
2002	National Health Policy
2003	National Policy for Access to Plasma-derived Medicinal Products from Human Plasma for Clinical/Therapeutic use
2003	National Charter for children
2005	National Rural Health Mission
2006	National Environment Policy
2009	Right to free and Compulsory Education
2012	National Pharmaceutical Pricing Policy
2012	National Water Policy
2013	National Policy for Childtren
2015	National Youth Policy
2017	National Health Policy

Source: Grover A, Singh RB. Health Policy, Programme and Initiatives. Urban Health and Wellbeing. 2019 Oct 26:251–66. doi: 10.1007/978-981-13-6671-0_8. PMCID: PMC7122919

Table 3.2

Health Missions in India

Year of Implementation	Health Mission
1996	Schemes pertaining to Intellectual Disability. (Bhadte Kadam Vikaas, Gyan Prabha, Prerna, Sambhav Samarth, Gharaunda, Niramaya, Sahyogi, and Disha)
2005	National Rural Health Mission (NRHM)
2008	National Mission on Medicinal Plants
2012	National AYUSH Mission
2013	National Urban Health Mission (NUHM)
2014	Swachh Bharat Mission (Clean India Mission)
2015	Affordable Medicines and Reliable Implants for Treatment (AMRIT)
2018	National Health Protection Mission (Ayushman Bharat Yojana/Pradhan Mantri Jan Arogya Yojana—PMJAY)

Source: Grover A, Singh RB. Health Policy, Programme and Initiatives. Urban Health and Wellbeing. 2019 Oct 26:251–66. doi: 10.1007/978-981-13-6671-0_8. PMCID: PMC7122919

In the meantime, non-communicable diseases such as cardiovascular disease, diabetes, and cancer, among others, account for more than 60 percent of overall mortality in India[182]. In a number of studies conducted all across the world, researchers have demonstrated that primary healthcare may enhance patients' overall health. It plays an important part in the primary as well as the secondary prevention of illnesses, specifically in preventing chronic and non-transmissible illnesses. People who have access to primary care of a high standard experience fewer health problems and, as a consequence, spend less time in hospitals as a direct result of this. Primary healthcare may include preventative, promotional, curative, rehabilitative, and palliative elements of healthcare in order to be full and thorough.

The Indian government launched Ayushman Bharat Abhiyan on February 1, 2018. This initiative aims to achieve universal health coverage for all citizens of India. The programme was specifically designed to contribute towards the achievement of the 2030 Agenda for Sustainable Development (SDGs). These goals encompass a commitment to ensuring the inclusion of all individuals[183]. Pandit Deendayal Upadhyaya's birthday falls on September 25, thus Narendra Modi, the country's prime minister, used the occasion of India's Independence Day in 2018 to announce that India will begin a significant national health effort on that date. The announcement was made to coincide with Pandit Deendayal Upadhyaya's birthday[184].

The goal of Ayushman Bharat aims to transition from the existing healthcare delivery system, which is selective and segmented, toward a system that provides comprehensive care based on patients' individual needs, The healthcare system encompasses various aspects such as promoting health, preventing illnesses, medical care, recuperation, and terminal illness support. The objective was to implement innovative measures to comprehensively address healthcare at all levels.

[182] WHO. Non Communicable Diseases; Country Profile for India; 2014

[183] https://nha.gov.in/PM-JAY viewed on 22.08.2022.

[184] Reema Mukherjee ,Manisha Arora (2018), "India's national health protection scheme: A preview". *Medical Journal of Dr. D.Y. Patil Vidyapeeth*. **11** (5): 385. doi:10.4103/mjdrdypu.mjdrdypu_109_18. S2CID 169815602

The Ayushman Bharat scheme comprises of two significant and interconnected components.:

1. Setting up Health and Wellness Centres(HWCs)

The preliminary component of Ayushman Bharat focuses on creating 150,000 Health and Wellness Centres (HWCs) by converting and improving existing Sub Centres and Primary Health Centres. These HWCs will play an essential part in India's healthcare infrastructure.

Health and Wellness Centres (HWCs) serve as fundamental pillars of the Ayushman Bharat Abhiyan initiative, with the goal of offering comprehensive Primary Health Care (PHC) services to address the health needs of the entire populace. within their designated jurisdiction. This approach is intended to enhance accessibility to healthcare services and bring them closer to the community. The broadened scope of healthcare services encompasses maternal and paediatric healthcare, non-transmissible ailments, hospice, and rehabilitative, oral, ocular, and otolaryngological healthcare, psychological, and primary care for situations of emergency and trauma, which includes the provision of essential drugs and diagnostic services at no cost.

The objective of health promotion and prevention is to maintain individuals' well-being by incentivizing and empowering them to adopt healthy behaviours and modify their lifestyles, thereby reducing their susceptibility to chronic diseases and health conditions.

The Health & Wellness Centre is expected to offer a range of essential services to cater to diverse healthcare needs, including:

1. Maternal Health Services and Prenatal Care: Anticipated services for expectantmothers, providing comprehensive care and support throughout pregnancy, includingregular check-ups, prenatal examinations, and nutrition counseling.
2. Services for Newborn and Infant Health: Anticipated specialized care for newborns and infants, including vaccinations, growth monitoring, developmental assessments, and early interventions for any health concerns.
3. Paediatric Care: Expected services to address children's health needs, offering routine check-ups, vaccinations, and treatment for common childhood illnesses, promoting healthy growth and development.

4. Management of Mental Illness: Anticipated provision of counseling, support, and treatment for mental health conditions, recognizing the significance of mental well-being in overall health.5. Chronic Communicable and Non-Communicable Illnesses: Expected management and treatment of chronic diseases, encompassing both communicable and non-communicable conditions, aiming to improve patient's quality of life.

6. Dental and Eye Care: Anticipated focus on preventive oral and eye health, offering regular dental check-ups, oral hygiene guidance, and eye examinations to prevent potential complications and ensure optimal dental and visual health.

7. Geriatric Care: Anticipated specialized care for the elderly, providing regular health assessments, management of age-related conditions, and support to maintain independence and quality of life.

8. Aesthetic Medicine: Expected services in aesthetic medicine, which may include non-invasive treatments for skin rejuvenation, hair care, and general appearance enhancement, promoting self-confidence and well-being.

By offering these services, the Health & Wellness Centre aspires to serve as a comprehensive healthcare destination, promoting preventive care, early intervention, and holistic well-being for the community it serves.

2. **National Health Protection Mission (AB-NHPM) or Pradhan Mantri Jan Arogya Yojana (PM-JAY)**

The Ayushman Bharat Yojana-National Health Protection Mission (AB-NHPM), frequently also known as the Pradhan Mantri Jan Arogya Yojana (PM-JAY), is a government initiative that operates as a Centrally Sponsored Scheme. It is recognized as the biggest health insurance system on a worldwide scale and functions as the second element of the broader Ayushman Bharat programme. The Indian Cabinet officially accepted the Ayushman Bharat Yojana-National Health Protection Mission (AB-NHPM) on March 21st, 2018[185]. The Department of Health and Family Services unveiled it in September 2018. This policy ensures healthcare coverage for the most economically disadvantaged 40 percent of the Indian populace, which equates to approximately 10.74 crore impoverished and susceptible households.

[185] Press Information Bureau,Government of India,Cabinet Dated 21st March,2018 ,Release ID : 177816, 20:29 IST https://pib.gov.in/newsite/PrintRelease.aspx?relid=177816

Additionally, It offers Rs. 5 lakh per family each year for hospitalization costs associated with secondary and tertiary care[186]. Beneficiaries include about 10 crore low-income families determined by the deprivation and occupational criteria for rural and urban regions in the Socio-Economic and Caste Census 2011 (SECC 2011). As part of SECC, families are ranked according to their socioeconomic position. Households are either automatically included or excluded based on predetermined exclusion and inclusion criteria[187]. Households in urban areas are classified by profession, while those in rural areas are graded according to their level of seven deprivation criteria (D1-D7)[188].

PM-JAY system has no family size or age limit to protect vulnerable groups including women, children, and the elderly. Pre- and post-hospitalization fees are covered. From day one, the coverage covers pre-existing conditions and pays the recipient a fixed transport allowance for every hospitalization. Patients eligible for PM-JAY can receive cash-free care at any hospital in the country, whether it be public or private[189]. To keep healthcare expenditures in check, patients will make electronic payments based on government-defined package rates.

In conclusion, this chapter provides a historical context of Health Administration in India by exploring the origin and development of healthcare as a whole and primary healthcare in particular. It discusses the background of health administration in India from ancient India during the Vedic Period, the Buddhist Period, and the captivating life of Gautama Buddha whose teachings inspired the wholesome, moderate, lifestyle-related concept of health with a clear focus on individual responsibility and on the moderation or 'the middle path'. The discussion continues with the development of healthcare during the medieval period, the advent of Christianity, the initiation of modern system medicine, and the subsequent development of healthcare, medical training, and education in the period of British colonial governance in India. The status of the healthcare distribution system pre and post-independence is discussed in some detail highlighting the basic premises of the

[186] https://nha.gov.in/PM-JAY viewed on 22.08.22
[187] Ibid
[188] Ibid.
[189] https://vikaspedia.in/health/nrhm/national-health-mission/ayushman-bharatpm-jan-arogya-yojana#section2 viewed on 22.08.22

Declaration of 1978 and the evolution of Primary Healthcare in India. The Five-Year Plans with health-related factors, Health Policies, and Missions are also highlighted. To round off the chapter, a short introduction to the Ayushman Bharat Yojana and its two components, the Ayushman Bharat-Health and Wellness Centres for providing an expanded range of health services at the primary healthcare level, and the Pradhan Mantri Jan Arogya Yojana(PM-JAY), a nationwide health insurance scheme, is presented.

CHAPTER IV

MIZORAM-A PROFILE

The preceding chapter has addressed the historical dimension of Health Administration in India, with some background on the origin and development of health and primary healthcare. It has discussed the background of health administration in India from ancient India during the Vedic Period, the Buddhist Period, the medieval period, and the advent of Christianity and the initiation of modern system medicine and subsequent development of healthcare, medical training, and education throughout colonial British India. The position of the healthcare delivery system pre- and post-independence has been discussed in some detail highlighting the basic premises and the evolution of Primary Healthcare in India. The Five-Year Plans with health-related factors and Health Policies and Missions are also highlighted. Finally, the chapter ends with a brief discussion of the Ayushman Bharat Abhiyan and its basic features.

The present chapter is a discussion on the profile of Mizoram State focusing on its geography including the general topography, the climate, the lakes and rivers, a brief political and administrative history and changes from traditional chieftainship, its abolition, insurgency, and attainment of statehood, status and challenges related to Communication and Transport, economic features of the state including agriculture, horticulture, forests, industry, mineral and tourism sectors, the general demography, health status and pertinent issues of healthcare specific to Mizoram- detailing the achievements as well as areas of concern - the toughest challenges in the health sphere ranging from transmittable diseases like HIV/AIDS, Malaria and Non Transmittable ailments like Cancer arising from the rampant use of Tobacco products,cardiovascular and lifestyle and age-related diseases, malnutrition etc.

In the northeastern expanse of India, Mizoram finds itself amidst the octet of states, including Meghalaya, Nagaland, Sikkim, Tripura, Arunachal Pradesh, Assam, Manipur, and Assam. The Indian North Eastern Region (NER) encompasses a significant portion, approximately 8 percent, of the nation's overall land area[190]. The

[190] https://in.one.un.org/un-priority-areas-in-india/north-east/ viewed on 21.12.2022

region of North Eastern India is bestowed with a plethora of abundant natural resources, with a huge stretch of fertile farmland and human resources-albeit untapped. The region is abundant in resources and possesses a significant portion of the country's water resources, amounting to 34 percent. Additionally, it holds nearly 40 percent of India's potential for hydropower generation[191]. The strategic location of the NER provides it with advantageous access to both the traditional domestic market of eastern India and the neighbouring states in the east, as well as the adjacent countries of Myanmar and Bangladesh[192]. The NER is positioned at a strategic location,providing a linking entrance region for Southeast Asian markets.

Despite its wealth of natural resources and opportunities, India's North Eastern Region (NER) has a reputation for being an underdeveloped part of the country. This characterization stems from several factors that have impeded its development and progress. One of the primary challenges faced by the NER is its geographical seclusion, as it is located in the farthest corners of the country, making it relatively inaccessible and disconnected from the rest of India. This geographical isolation has led to poor infrastructure development, including limited road and rail connectivity, which hinders the smooth movement of goods and people, hampering economic growth and trade opportunities.

Moreover, the NER has faced challenges in capital formation due to the inadequate utilization of human and material resources. Despite having rich human capital, the region has struggled to leverage it effectively to drive economic activities and development. The lack of skilled labour, coupled with limited access to modern technology and industrialization, has hindered the region's potential for capital formation and economic growth. Additionally, the underutilization of its vast natural resources, such as hydropower potential and biodiversity, has been a missed opportunity for the region to tap into sustainable and renewable energy sources and generate economic benefits.

[191] FICCI(2014),"Gateway to the ASEAN:India's North East Frontier" as quoted in https://in.one.un.org/un-priority-areas-in-india/north-east/ viewed on 21.12.2022
[192] https://in.one.un.org/un-priority-areas-in-india/north-east/ viewed on 21.12.2022

These factors collectively contribute to the NER's status as a low-income region, where economic growth and development have been relatively sluggish compared to other parts of the country. Addressing these challenges and unlocking the region's potential requires concerted efforts from the government, private sector, and local communities. Investment in infrastructure, skill development, and sustainable resource management could pave the way for a brighter and more prosperous future pertaining to the NER, metamorphosing the area into a region of opportunities and growth.

Geography

Mizoram is a region characterized by a preponderance of indigenous tribal communities and is known and appreciated for its picturesque landscapes of mountains and valleys. The region boasts a unique blend of both rural and urban characteristics, creating an almost asymmetrical and heterogeneous ambiance. This diversity can be witnessed in the coexistence of traditional tribal villages and modern urban centres within the state. Mizoram lies in the southernmost part of NER, bordered by the contiguous states of Tripura, Manipur, and Assam. Its geographical location gives it a strategic significance as it serves as the gateway to the northeastern states, connecting them to the rest of the country. Mizoram spans a total area of 21,087 square kilometers, with its elongated shape extending over a distance of 277 kilometers in the north-south direction and 121 kilometers in the east-west direction [193].

The topographical features of the state's terrain are defined by rolling hills, verdant forests, and serene valleys, making it a haven for nature enthusiasts and adventure seekers. The diverse topography not only enhances the scenic charm of Mizoram but also impacts the lives and cultural heritage of its inhabitants. indigenous tribal communities. These tribes have been a fundamental component of the area's history, culture, and heritage, contributing to the rich tapestry of Mizoram's identity. Despite being a predominantly rural region, urban centres like Aizawl, the capital city, have steadily grown over the years, becoming hubs of commercial, educational, and administrative activities. The state government has also endeavoured to develop essential infrastructure and amenities, providing a better quality of life to its residents

[193] https://mizoram.nic.in/about/glance.htm viewed on 21.12.2022

and fostering economic growth. Mizoram's unique blend of rural and urban features, coupled with its stunning natural beauty and cultural richness, makes it a captivating destination that offers a glimpse into the vibrant tapestry of life in India's North Eastern Region [194].

The term "Mizo" refers to the autochthonous population, and "Ram" is the term for land; hence, "land of the Mizos" is what "Mizoram" literally translates to. Mizo is the official language of the region. Along the state's border with Myanmar, the Mizo Hills rise to an altitude of more than 2,000 meters (6560 feet), making them the state's most prominent geographical feature. The state capital is Aizawl. The majority of the state is located between the nations of Bangladesh and Myanmar, which gives it a strategic location. This is because it shares a roughly 585-kilometer-long international border with both of these foreign nations.

Mizoram is often referred to as a landlocked region due to its geographical position, where its southern border borders the international frontiers of Bangladesh and Myanmar, and its northern sector shares domestic boundaries with Tripura, Assam, and Manipur. Mizoram is characterized by a relatively modest population size compared to other states in India, with just 1,308,967 inhabitants. All eleven districts of Mizoram are characterized as either tribal or hilly regions, emphasizing the state's strong tribal identity and its close bond with nature. The hilly terrain offers beautiful landscapes, including cascading waterfalls, dense forests, and terraced hills, creating a picturesque setting. Mizoram's beauty is further accentuated by the presence of border towns in Southern Aizawl, such as Champhai, Chhawrtui, Darlung, and Phuldungsei, which fall precisely along the Tropic of Cancer at 23 degrees 30 minutes north latitude[195].

Mizoram is characterized by its undulating landscape dotted with valleys, rivers, and lakes. The whole length and width of the state are bisected by 21 peaks, with lowlands dotted here and there. Mizoram's highest point, Phawngpui Tlang is situated in the southeastern region of the state and rises to 7,250 feet. The majority of

[194] https://mizoram.nic.in/about/glance.htm viewed on 21.12.2022
[195] Rintluanga Pachuau(2013), Mizoram A study in Comprehensive Geography, Northern Book Centre, New Delhi, p.24

the elevated landforms exhibit a considerable incline and are characterized by a multitude of profound, nearly perpendicular gorges[196].

Despite being in a tropical region year-round, Mizoram has a moderate temperature mostly because of its relatively high altitude. Temperatures in Mizoram rarely change by more than a few degrees from one season to the next, with the exception of some lowland valley regions. However, a consistent yearly temperature increase has been noted, mirroring a global trend. The months of May, June, and July see the highest average temperatures of the year before temperatures begin to drop with the onset of monsoon and continue to drop up to the winter season, extending from November through February, and reaches its peak in December and January. It seldom rains in the winter. A humid tropical environment with short winters,long summers and abundant precipitation. The total Annual Rainfall in Mizoram during 2018 (January – December) was 1958.5mm[197]. The rainy season typically begins in April, has its peak from May through September, and continues until late October.

Mizoram is considered a hotspot of biodiversity in the NER of India and is blessed with plentiful species of animals, birds, and flora. Mizoram forests have 9 mammal species, eight species of primates, eight animals of the cat family, a wide variety of lesser carnivores, and herbivores, and many reptiles, amphibians, fish, and invertebrates. Rising population, biotic pressure, and subsequent developmental efforts have brought about fragmentation and disturbance in equilibrium to the inimitable habitat of Mizoram. To protect, conserve, and develop wildlife and the ecology, the Mizoram Government has officially designated 10 areas as Protected Areas within the state, which encompasses around 8 percent of the state's entire land area.

Although it is difficult to find a systematic study and/or official documentation of the flora of Mizoram, the state has a large variety of plant species - some of them extremely rare and beautiful. Twenty or so distinct varieties of bamboo may be found growing wild throughout the State, taking up a sizable amount of forest land and

[196] 2 Intelligence Branch: Division of the Chief of the Staff, Army Headquarters, India, comp. Frontier and Overseas Expeditions from India, Vol. IV, North and North-Eastern Frontier Tribes, Government Monotype Press, Simla, 1907, p. 231.

[197] https://des.mizoram.gov.in/uploads/attachments/45a468413d12c707189760fbfdaeba5b/pages-137-rainfall-2018.pdf viewed on 21.12.2022

providing for a wide range of human needs, from housing to fuel to small-scale and cottage enterprises[198]. The state relies heavily on bamboo for building materials, agricultural tools, households, and more. The young shoot of bamboo, although abundant, is still considered a delicacy, eaten, and greatly relished by the entire population.

While the state has different types of lakes-Palak Dil, a natural lake, is the only lake of any real significance in the state of Mizoram. The few natural lakes in Mizoram are generated at the natural embarkment points created by the state's highlands and ridges. Besides the Palak Dil, there are also the larger lakes of Tamdil and Rengdil; the former, lying close to Aizawl, has been improved by the state government. Located close to Saitual Village and around 87.5 kilometers from Aizawl, Tamdil translates to "Lake of Mustard." One of the most visited lakes in the state, it has been developed as a pisciculture centre by the Fisheries Department, Government of Mizoram, and as a tourist destination by the Tourism Department. A dense forest encloses the lake, providing shelter for a broad range of wildlife. Rungdil and Vachadil are two smaller lakes.

Political and Administrative History of Mizoram

The lack of regular and organized recordkeeping makes it challenging, if not impossible, to provide precise accounts and accurate dates regarding the historical development of the Mizos before the Britishers' arrival in the late 18th century. The absence of written records from that period makes it difficult to piece together a comprehensive and detailed historical narrative. As a result, much of the information about the pre-colonial era is derived from oral traditions, folklore, and archaeological findings, which may not offer a complete and fully verifiable account of events. Before the British colonial presence, the Mizos had a rich and diverse cultural heritage, with their history primarily transmitted through generations via oral storytelling. These stories passed down through the ages provided insights into their ancestral roots, migrations, and encounters with neighbouring communities.

The advent of the British in the latter part of the 18th century marked a significant turning point in Mizoram's history, as it brought forth a new era of

[198] Ibid

documentation and recorded history. The colonial administration's presence and the subsequent establishment of written records had a pivotal impact on shaping our understanding of the area's history during this period. Still, the earlier epochs remain shrouded in mystery and rely on fragmented accounts to gain insights into the lives and civilizations of the Mizos before the advent of written records.

It is currently not feasible to produce an official historical account of the early Mizos, as the concept of history entails systematic and precise documentation of past events[199]. It has however been commonly accepted that the people of Mizoram have migrated from a place called 'Sinlung' or 'Chhinlung'[200], believed to be in the southern part of China through northern Myanmar, most probably from Yunnan province, in the later part of the 17th Century or early 18th century. Some of them settled in the region while others settled in neighbouring nearby areas. The tribes living in the neighbouring areas, outside of Mizoram call themselves 'Zomis' or 'Zos' while the Britishers called them Lushais, Kukis, and Chins in Myanmar. The Lushai clan, one of several in the area, is widely believed to be the inspiration for the name "Lushai"[201].It is commonly agreed upon by historians and scholars alike that all the tribes inhabiting nearby neighboring areas in Assam, Tripura, Manipur, and even the tribes residing in Myanmar belonged to the same proto-tribe. They are collectively known as 'Zo Hnahthlak' which means people with Zo origin and progeny[202]. Although some other tribes including the Lais, Lakhers, Hmars, Paites, etc., have at times, shown their inclination to assert their own sub-tribal identity.

As per the accounts of oral tradition, the last influx of the Mizos to India happened around the period when chieftainship had become hereditary in nature most probably about the turn of the 18th century. According to Lushai's legal code of inheritance was such that the youngest son of the chief would succeed to the

[199] Census of India,1961 Assam DISTRICT CENSUS HANDBOOK MIZO HILLS E. H. PAKYNTEIN of the Indian Administrative Service Superintendent' of Census Operations.,. Assam, Printed at the Tribune Press,. Gauhati and published by the Government of Assam 1965, p 7

[200] Sinlung,also called Chhinlung, Khur or Khul, is believed to be the original home of the Chin, Kuki or Zo people as has been orally handed down by the ancient Mizo and other sub-tribe/clan. Numerous songs and stories about this place have been made and handed down from generation to generation.

[201] Census of India,1961 Assam DISTRICT CENSUS HANDBOOK MIZO HILLS E. H. PAKYNTEIN of the Indian Administrative Service Superintendent' of Census Operations., Assam, Printed at the Tribune Press, Gauhati and published by the Government of Assam 1965,p 5

[202] See https://www.ide.go.jp/library/English/Publish/Reports/Jrp/pdf/133_8.pdf viewed on 22.12.2022

chieftainship inheriting all other property. The other older sons on reaching the age of maturity would be given permission to set up a new village and become a chief in the new village created under his father's patronage. It is not possible to pinpoint the exact time Chieftainship as a Social Institution originated. It seems to have originated in the group dynamics and shared requirements of primitive societies[203]. The earlier practice was warrior chieftainship when a chief was either elected or invited to rule because of the sheer virtue of his outstanding physical, and intellectual skills and his ability to organize and make people accept his authority willingly by pure force of his personality. Of all the other chiefs, the chiefs who belonged to the Sailo clan who ruled over the Lushai tribes turned out to be most resilient and enduring on account of their superior skill in the art of administration. The system introduced by the Sailo Chiefs could then become the custom and norm of village administration which the foreign British rule accepted and upholded with minimal interference. In fact, foreign rule used the institution of Chieftainship to maintain and even strengthen its indirect rule over the region.

When the Britishers annexed the area which is now officially Mizoram, the politico-administrative unit constituted the village of which there were many - all scattered and situated apart from each other. The village was autonomous and occupied the most significant place in the traditional administrative system. The society therein was an egalitarian society consisting of an extremely close-knit community characteristic to all tribal communities. Each village was headed by the Chiefs who had an immense local standing within his area of jurisdiction. Each village or group of villages used to be largely autonomous, with only the all-powerful village tribal Chief responsible for administration within their area of jurisdiction. This allowed each village to handle its own internal and external affairs without interference from other communities. Based on available evidence, it can be inferred that the Mizos migrated to their current location in Mizoram during the mid-17th century[204]. The first Lushai chief to gain recognition from the outside world was

[203] N.Chatterjee,The Mizo chief and His Administration,Aizawl,1975,p.1 quoted in Lalhmingliani Ralte, The Mizo chief and His Administration before 1890 in Sangkima(ed) A modern History of Mizoram,Spectrum Publications,Guwahati:Delhi,2004,p 1.

[204] H.K Barpujari,(1996) ,Assam in the Days of the Company, North Eastern Hill University Publications, Shillong, pp 16-18.

Lallula. When the Mizo people left Burma for the Western Hills, he was at the helm. They were members of the Sailo tribe[205]. The Sailors, who were the ruling clan, established their supremacy over the entire region by virtue of their political and administrative skills with the only exception of the Pawih-Lakher region.

Within Mizo society, the chieftains, known as 'Lals,' held a position of great importance and were revered as benevolent rulers, akin to a caring and protective father figure for their subjects. The term 'Lal,' translating to 'King' in English, reflected the significant authority and influence they wielded over their respective villages or communities. The role of the chief was not merely that of a ruler but extended to that of a guardian, responsible for the welfare and well-being of his people. One of the primary obligations of the chief was to support and assist his subjects during times of hardships or challenges. Whether it was in times of famine, natural disasters, or personal crises, the chief was expected to offer guidance, protection, and help to those in need. On the other hand, the chief also served as the arbiter of justice, ensuring that crimes were met with appropriate punishments and that traditional customs were upheld within the community. However, despite their considerable authority, the Mizo chiefs could not adopt a despotic role.

The chief's power was not absolute, as the people had the option to choose another village and seek protection from a different chief if they were dissatisfied with the administration. This system of flexibility and mobility ensured that the chiefs had to strike a balance between exercising authority and maintaining the trust and loyalty of their subjects. The chief's legitimacy rested on his ability to govern with fairness, compassion, and wisdom, and those who upheld these qualities were more likely to gain the respect and support of their people. In return for the chief's benevolence and leadership, the people were expected to submit to his authority, pay necessary taxes, and cooperate with him in carrying out various responsibilities. This reciprocal relationship between the chief and his subjects created a harmonious social order, where mutual trust and cooperation were vital for the community's well-being. It exemplified the traditional governance system in Mizo society, characterized by a delicate balance of power, respect, and shared responsibilities that fostered a sense of

[205] Animesh Ray(1982), Mizoram Dynamic of Change, Pearl Publisher, Calcutta.p. 17

unity and belonging among the people. The villages in the Lushai Hills, back when they were ruled by individual chiefs, were in many ways similar to the Greek city-states [206].

In the traditional Mizo society, the Chiefs ruled their villages with the assistance of an advisory council known as 'Upas,' which translates to 'Elders' in English. The Chief would appoint these respected and experienced elders to aid in the overall governance and decision-making process of the village. The Upas played a multifaceted role, serving as both ministers and officials, and their wisdom and counsel were highly valued in matters of village administration. Apart from the Upas, the Chief appointed other officials and functionaries, each with specific duties and responsibilities to ensure the smooth running of the village administration. These individuals held essential roles in the community and contributed to various aspects of village life. They were the Tlangau (the village announcer), Ramhuals (the farming expert), Zalen (crisis manager), the Puithiam(the village priest),the Thirdeng(the village blacksmith),the Chief's Priest known as the Sadawt and Khawchhiar (village writer)[207]. The village announcer, played a vital role in disseminating information and announcements throughout the village. They were responsible for conveying the Chief's messages and other important news to the villagers, keeping them informed about communal activities, events, and decisions. The Ramhuals, or farming experts, were crucial in agricultural matters. They possessed extensive knowledge of farming techniques, crop cultivation, and agricultural practices, and their expertise was sought to ensure a successful and bountiful harvest. The Zalen, or crisis manager, held a pivotal position in handling emergencies and resolving conflicts within the village. They acted as mediators and peacemakers, working towards amicable solutions to disputes and maintaining harmony within the community.

The Puithiam, or village priest, played a significant role in religious and spiritual affairs. They conducted rituals and ceremonies, offering prayers and blessings to ensure the well-being and prosperity of the village. The Thirdeng, or village

[206] See J Doungel, Chieftainship as a traditional dominant political institution of the Lais: A case study of the Lai Chieftainship of Mizoram,2019, p 1
[207] See A.P.K Singh (2016), Political Scenario of Mizoram: Past and Present, Mittal Publications, New Delhi 42

blacksmith, was responsible for metalwork and craftsmanship. They played an essential role in creating tools, weapons, and other implements required for daily life and agricultural activities. The Sadawt, or Chief's Priest, held a position of great reverence, being responsible for performing religious ceremonies and rituals specifically related to the Chief's well-being, authority, and governance. Lastly, the Khawchhiar, or village writer, was responsible for keeping records, maintaining important documents, and preserving the village's historical and genealogical records. Their role was crucial in documenting the community's heritage and traditions.

Collectively, these officials and functionaries formed an organized administrative framework that supported the Chief in governing the village effectively. Their contributions were instrumental in maintaining social order, preserving cultural heritage, and fostering a sense of community cohesion in the traditional Mizo society.

The Lushai territory, which had been in physical seclusion for numerous years could not continually remain unaffected by the overreaching control of British colonialism. In due course of time and on various occasions, the Lushais came in collision with the colonial British due to the tendency of the Lushais to raid their neighbouring areas including the British-occupied territories of Assam tea gardens in an effort to resist the looming expansion of the British colonialism. The Lushai raids led to counter-raids from the British side. This led to the British sending punitive military expeditions in the tribal areas from time to time. The Chin-Lushai Expeditions of 1889-90 were the last of such expeditions and were a grand success in terms of bringing the Lushais under their subjugation.

The Expedition of 1889-1890 represented a significant milestone in the historical trajectory of the Lushai Hills in Chin-Lushai territory. Prior to this expedition, the region was characterized by a series of raids and counter-raids between various tribal groups, leading to instability and conflict. The British authorities, recognizing the need to establish control and bring stability to the area, launched a military expedition to quell the unrest once and for all. The British Expedition of 1889-1890 was successful in suppressing the hostilities and brought the warring tribes under British control. As a result, the British colonial administration saw an opportunity to assert its authority over the region and decided to annex the Lushai Hills. In 1891, a

regular administrative setup was established with a British Superintendent appointed to govern the region. This marked the beginning of British colonial rule in the area.

However, the establishment of British rule was met with opposition from the traditional chiefs and leaders of the Lushai Hills. The local chiefs, who had wielded significant influence and authority within their communities, were reluctant to accept the British colonial administration's authority over their lands. They witnessed the establishment of British governance as a challenge to their traditional governance systems and customs. Contrastingly, the British colonial administration, aimed to consolidate their control and bring about socio-political reforms in the region. This led to tensions between the chiefs and the British authorities, as the traditional power structures clashed with the new colonial administration's policies and regulations. Despite the opposition from the local chiefs, British rule gradually established its presence and implemented administrative reforms. The chiefs' authority was curtailed, and their role in governance was diminished, as the British Superintendent and the colonial bureaucracy took charge of administrative affairs. Over time, the British colonial administration introduced modern governance practices, such as the establishment of courts, schools, and other administrative institutions, which further marginalized the chiefs' traditional roles.

As a result, the period following the Expedition of 1889-1890 saw a notable alteration in the political as well as social terrain of the Lushai Hills. The region became integrated into the British colonial system, with the traditional authority of the chiefs giving way to British colonial rule. This marked the commencement of a fresh era in the historical narrative of the region, one that would have a lasting impact on its socio-political development and identity. The issuance of a formal proclamation by the Governor General of India in Council occurred on September 6, 1895[208].

The political and administrative history of Lushai Hills can be officially chronicled from the year 1890 under a Political Officer who administered the region and exercised the Superintendent's authority. On April 1st, 1898, the British administrations in Bengal and Assam undertook the merger of the North and South Lushai Hills, resulting in the establishment of the Lushai Hills District. The decision

[208] Ibid,p 43

was undertaken with the objective of augmenting administrative efficacy, leading to the future integration of the new district into the state of Assam. The British colonial power regarded the newly created district as a more backward area Major John Shakespear served as the district's first superintendent in the Lushai Hills. The Assam Frontier Tracts Regulation of 1874 and the Scheduled District Act of 1880 were established. The transfer of administrative jurisdiction of the district occurred in 1898, wherein it was placed under the supervision of the Chief Commissioner of Assam, who assumed responsibility for overseeing the district's operation. The Chief Commissioner served as an intermediary between the populace and colonial power, bearing responsibility for their actions. In return, the Superintendent did not meddle with the daily operations, recognizing the expertise of the chiefs who reported to him. The chiefs therefore became the de facto representatives of colonial authority.

For a span of more than half a century, stretching from its inception until April 1952, the administration remained remarkably stable and unchanged, with no major alterations or reforms taking place during that time. During this period, significant constitutional revisions were introduced, leading to a profound alteration in the legal standing of the Lushai Hills District. The Government of India Act of 1919 and 1935 were two significant legislative measures that had profound effects on the broader political environment of India. The entire Northeast Region was under the governance of the Assam provincial administration. While the self-governing princely states of Manipur and Tripura enjoyed some autonomy, all other areas were subject to the prevailing governance structure. These constitutional changes brought about a significant shift in the administrative setup and political dynamics of the region during that time.

Following the enactments of 1919 and 1935, the Lushai Hills District and the adjacent Assamese hill tracts were officially designated as "Backward Areas" on January 3, 1921. These areas had previously been identified as "Backward Areas" under the Act of 1919, signifying their underdeveloped and less integrated status within the broader administrative framework. Consequently, these regions were not adequately represented in the Central or Provincial legislature, indicating the lack of attention and resources directed towards their development. In the Act of 1925, the term "backward" was replaced with "Excluded Areas" as the former was considered

derogatory and inappropriate. Designated as "Backward Areas" under the Government of India Act of 1919, these regions later, under the Act of 1935, were designated as "Partially Excluded Areas." Thus, on January 3, 1921, the Lushai Hills District, along with other hill tracts of Assam, became part of the "Backward Areas."

The Act of 1935 further categorized the "Excluded Areas" into two distinct groups: "Excluded Areas" and "Partially Excluded Areas." In line with this classification, the Lushai Hills, Naga Hills, and North Cachar Hills were designated as "Excluded Areas." In contrast, the Garo Hills, Mikir Hills, and the British-administered segments of Khasi and Jaintia Hills, which encompassed the Shillong Municipality and Cantonment, were categorized as "Partially Excluded Areas. “Additionally, Balipara, Sadiya, and Lakhimpur Tracts were included under the "Frontier Areas" under the same Act.

The "Excluded Areas" were considered comparatively more backward, requiring greater government intervention to bring them at par with more developed regions. As a result, these regions were governed by special provisions and regulations tailored to address their unique needs and challenges. While the designation of "Excluded Areas" granted them a certain degree of autonomy to preserve their distinct cultural, social, and political identities, it also posed challenges in terms of integration and uniform development with the rest of the country. The classification as "Excluded Areas" exerted a pivotal influence in molding the governance and administrative structure of the Lushai Hills during that period.

The Mizos residing in the Lushai Hills had already begun to experience political awareness and awakening during the British colonial period. The Mizo Common People's Union, which was subsequently renamed as the Mizo Union, formed as the first political party on April 9, 1946. This party would go on to become known as the Mizo Union. Its establishment aimed to represent and advocate for the aspirations and demands of the Mizo community, particularly concerning political rights and the status of the common people. The desire to express the political ambitions and demands of the Mizo population, with an emphasis on gaining political

rights and status for the general public, served as the impetus for the creation of this political organization[209].

The Indian Constituent Assembly established an advisory committee to address issues affecting minorities and tribal peoples. The committee established the Bordoloi Committee as a subcommittee to provide guidance to the Constituent Assembly regarding the tribes in the North East region. In a resolution that was made accessible to the committee, the Mizo Union pleaded for the inclusion of all Mizo-inhabited regions that are located in close proximity to the Lushai Hills. After the Bordoloi Sub-Committee submitted its suggestions, the government gave some autonomy, which was later formalized in the constitution's Sixth Schedule.

Lushai Hills remained an Assam state district after India gained independence in 1947. The Assam administration enacted the Assam Autonomous District Rules 1951 on October 15, 1951, based on the Sixth Schedule of the Constitution[210]. Autonomous status was conferred upon the Lushai Hills district in the year 1952. Thus, a new District Council was established under it on April 25 of the same year, consisting of 24 members: 8 elected and 6 nominated. The Schedule included provisions for creating regional or village councils under the direction of the District Council. By such time, the other sub-tribes of the District had become politically cognizant of their right for some autonomy to manage their own affairs in the form of a regional council. The Maras and Lais established the Pawi-Lakher Tribal Union (PLTU) in 1949 to establish an independent Regional Council. In 1953, a separate PLRC was established, headquartered in Saiha. In 1956, the PLRC took over managing resources and authority of the fifty existing chiefs[211].

Three members of the Assam Assembly were elected from the Lushai Hills District while it was still a part of Assam state. The Lushai District's participation in the 1952 Assam assembly elections and the Parliamentary elections added to the political participation and consciousness of the Mizo people.

[209] Ngurbiaka(2004), Emergence of Mizo District Council and Pawi-Lakher Regional Council in Sangkima(ed) A modern History of Mizoram,Spectrum Publications,Guwahati:Delhi. p.140
[210] A.P.K Singh(2016),Op.Cit,p.42
[211] Ibid,p .47

With the growth of democratic philosophies and principles, the traditional institution of chieftainship was soon replaced by a democratic institution-Village Councils. The process of replacement was initiated by the Mizo Union who had submitted a Bill to the Lushai District Council moving to abolish Chieftainship in a bit to install a more democratic form of administration. In 1953, the Lushai Hills district council endorsed the Lushai Hills District (Chief's Abolition) Act, 1952. In response, the Assam - Lushai Hills District (Acquisition of Chief's Rights) Bill, 1954, was adopted the next year, and in the same year, chieftainship was finally abolished[212]. The Act transferred all the Chiefs' specialized privileges and powers, which had previously been held by the Chiefs in the Council Area, to the District Council. The same thing was done in the region governed by the PLRC Council, and all of the authority and duties were transferred to the PLRC. Thus, democratic institutions replaced the traditional institutions of the Mizo Society.

Until August 1954, the region was referred to as Lushai Hills. On the other hand, on September 1, 1954, the "Lushai Hills District (Change of Name) Act, 1954 (18 of 1954)" was enacted and gained the assent of the President, which resulted in the district being renamed the "Mizo District." This legislative measure marked the official renaming of the region and signified a shift in how the area was identified and recognized. The "Lushai Hills District (Change of Name) Act, 1954" was a crucial step in the direction of honouring the distinct identity and aspirations of the Mizo population. This legislation was enacted in the year 1954. The change of name to "Mizo District" reflected the desire to adopt and advance the cultural and ethnic legacy of the populace residing in the region. The term "Mizo" held greater cultural and historical relevance for the inhabitants, and the renaming aimed to align the official nomenclature with their collective identity[213].

---

[212] ASSAM ACT XXI of 1954,The Assam Lushai Hills District (Acquisition of Chiefs' Rights) Act,1954 published in the Assam Gazette,dated the 27th July,1955 also available at https://legislative.assam.gov.in/sites/default/files/swf_utility_folder/departments/legislative_medhassu_in_oid_3/menu/document/The_percent20Assam_percent20Mizo_percent20Dists._percent20percent28Acquisition_percent20of_percent20Chiefs_percentE2_percent80_percent99_percent20Rightpercent29_percent20_percent28Amdt._percent29_percent20Act_percent2C_percent201955..pdf viewed on 22.04.23

[213] Census of India,1961 Assam DISTRICT CENSUS HANDBOOK MIZO HILLS E. H. PAKYNTEIN of the Indian Administrative Service Superintendent' of Census Operations, Assam, Printed at the Tribune Press, Gauhati and published by the Government of Assam 1965, p 5

Meanwhile, the movement for the desire for a comprehensive and fully established state from various quarters-political parties and from the Mizo leaders had started. A tragic chapter in Mizo history occurred when the Mizo National Front (MNF) spearheaded a wave of insurrection that tore through the state as a result of the political awakening and growing youth dissatisfaction[214]. The primary aim of the MNF insurgency or uprising was to establish a self-governing and autonomous nation-state for the Mizo community. The 28th February 1966 uprising was a rebellion directed towards the Indian government. The activities of insurgents and counter-insurgents persisted throughout the subsequent twenty-year period. The escalation of dissatisfaction and unrest ultimately resulted in the proclamation of autonomy by the MNF in the year 1966.

In 1967, the MNF (Mizo National Front) was banned due to a resurgence in demands for regional autonomy. The Indian government was obligated to control the administration of the Mizo Hills region to resolve conflict and establish stability. In 1971, the Mizo Hills District was designated as a Union Territory, and it was anticipated that statehood would soon follow. The Lt. General took over as Mizoram's governor from the Assam Governor. Union Territory status granted political appeasement for a limited duration, easing the populace's concerns. Mizoram had its own 30-member Legislative Assembly with a Council of Ministers all formed and elected through a democratic process.

Meanwhile, several peace talks ensued with the MNF-led conflict which had yet to be solved on a more permanent basis. The Mizoram Peace Accord entitled Memorandum of Settlement (MOS) was finally signed on 30th June 1986 between MNF and the Indian Government as the MNF had now accepted the fact that bidding farewell to arms and gracefully making way for peace was the only option to achieve the goals of development and also more beneficial for the greatest good of the greatest number. Ultimately, peace reigned after 20 years of protracted struggle, conflict, and

[214] The MNF was a political organisation born out of an organisation first called Mizo Cultural Society formed in 1955.In 1960 ,the Society changed into 'Mautam Front' during a devastating famine called Mautam Famine of 1959-1960 and played a leading role in demanding relief and managed to attract an enormous attraction in the Mizo society. The name was again changed to Mizo National Famine Front in September,1960 and finally into a new political organisation MNF on 22nd October,1966 led by one of the most charismatic political leaders of the Mizo society, Laldenga.The insurgency that ensued in the area was led by this organisation.

unrest. A prerequisite of the Mizoram Peace Accord, among other things, was the conferment of Statehood to the region. On February 20th, 1987, Mizoram officially became the 23rd state of the Indian Union.

Communication and Transport

Transport and Communication are the lifelines of any community, region, state, or country and the means through which there can be optimum use of man and material resources. Mizoram, like the other regions of NER of India, is comparatively less developed in terms of transport and communication. The general topography may be regarded as a major reason for the inadequate development of transport and communication. The general topography of Mizoram is composed mainly of mountainous terrain, rolling hills with occasional and minor covers of flat lands[215]. Road transportation is the primary mode of transportation in the region, and it is subject to various unfavourable constraints. Due to the precipitous physiology and abrupt morphology of the land, the development of roads in Mizoram is of great difficulty[216]. Construction and maintenance of roadways is a challenging matter due to the physical features of the region. Despite the challenges, much progress has been achieved in this field.

The aggregate length of all road classifications in Mizoram is 7237.694 kilometers, comprising 4335.379 kilometers of State Boards and 1410.500 kilometers of Highways. In contrast to the nationwide average of 148.00 kilometers per 100 square kilometers, Mizoram's road density is much lower at 34.32 kilometers per 100 square kilometers[217].

[215] Rintluanga Pachuau(2014),*Mizoram:A study in Comprehensive Geography*,Northern Book Centre,New Delhi,2014, p.33
[216] Ibid. p.97
[217] Economic Survey of Mizoram 2021-2022,Govt.of Mizoram,p.83

Road infrastructure within the State and assets maintained by the Government is given under: -

Table No: 4.1
Road Network in Mizoram

Sl.No.	Road Names	Length of the road (in Kms)	Surfaced Roads (in Kms)	Not Surfaced (in Kms)
1	Major Roadway (National Highway)	1410.5	1322.5	88
2	State Highway	170.2	170.2	
3	District Road(Major)	502.3	440.3	62
4	District Road	764.7	580.3	184.4
5	Rural Roads	1695.1	563.2	1131.9
6	Urban and Suburban Roads	849.3	629.1	220.2
7	Urban(City) Roads	353.7	315.2	38.5
	Total under State PWD	5745.879	4020.918	1724.961

Source: Economic Survey of Mizoram 2021-2022, Govt. of Mizoram

Under the framework of its LOOK/ACT EAST POLICY, the Indian government is providing financial support for the Kaladan Multi-Modal Transit Transport Project. (KMMTTP), under which a two-lane highway from Lawngtlai to R. Zocha (the Myanmar border) is being built. The project's goal is to strengthen economic and cultural ties with South East Asia through the North Eastern Region and Myanmar. The road connects the landlocked Northeast with Kolkata via the Sittwe seaport. Myanmar's KMMTTP is a Multi-Modal Transit Transport Route that includes land, river, and sea routes through Mizoram State along the Kaladan River up to Myanmar's Sittwe (Akyab) seaport in the Bay of Bengal. The new two-lane road begins at the AOC gas station in Lawngtlai Town, located at kilometer post 473.40 on National Highway 54. Mizoram's portion of the KMMTTP is nearly finished[218].

In terms of the Railway network, Mizoram had been totally isolated until 1991, when the railway line from Assam was extended to Bairabi, Kolasib District in the state. Bairabi Railway Station is the only railhead consisting of 3 platforms. On March

[218] Ibid, p.85

21, 2016, the 84.25-kilometer-wide gauge rail route from Assam's Katakhal Junction to Bairabi was finished[219].

As regards Airways, Lengpui Airport is the lone airport in Mizoram inaugurated on 12th December 1998. At present, there are two (two) Airlines operating at Lengpui Airport which connects Shillong/ Guwahati /Kolkata /Agartala /New Delhi & Mumbai. Courier Services for CAPF by Air India was resumed from 5.11.2021 and scheduled to be operated every Friday[220]. Besides operation of the above Airlines, Helicopter is operated on a wet lease basis within the boundary of the State[221].

Economic features

Mizoram is regarded as one of the most rapidly developing economies among the smaller states of India[222]. In the fiscal year 2020–21, it is predicted that the state's per capita income would rise to Rs. 1,47,298 after accounting for inflation, up from the preliminary number of Rs. 1,31,781 in the previous fiscal year of 2019–20[223]. India's per capita income for 2020-21 is projected to be Rs. 1.27 lakh, which represents a decrease from the figure of Rs. 1.32 lakh reported for the period of 2018-20. According to statistical evidence, the State has continually maintained a per capita income surpassing the national average. Mizoram's economy is heavily dependent on a number of industries, including agriculture, horticulture, forestry, industry, mining, and tourism. Mizoram's GSDP is predicted to rise to Rs. 20369.33 crore for 2020-2021, at unchanged 2011-12 prices. Over the expected sum of Rs. 18033.61 crore from the prior year, which implies an increase of almost 12.95 percent[224].

The state of Mizoram has a primarily agrarian economy. The climate in the state is ideal for cultivating a diverse range of crops. The state of Mizoram relies heavily on agriculture because a sizeable section of its population relies on it as its main source of income. This industry employs over 60 percent of the state's total workforce, per the Economic Classification of Workers from the 2011 Census. During

[219] Ibid, p. 86
[220] Ibid.
[221] Ibid.
[222] See Sustainable Development Goals-Mizoram Vision 2030, Planning and Programme Implementation Department, Government of Mizoram, p.9
[223] See Economic Survey of Mizoram 2021-2022, Govt.of Mizoram p.2
[224] See Economic Survey of Mizoram 2021-2022, Govt.of Mizoram,p .5

the preceding year. Two types of agricultural production are practised in the state - terrace cultivation and shifting/jhum cultivation. Terrace agriculture is a sort of semi-permanent farming in which crops are grown on progressively higher terraces on the slopes of hills and mountains to stop soil erosion and protect water and mineral resources. For centuries, Jhumming/Shifting system or the system of slash-burn-cultivate has remained the main pattern of cultivation in Mizoram. This cycle starts in the beginning of the year during January-February while the process of clearing the remnants is usually done during the months of March and April, followed by cultivation of the land. In the absence of proper and systematic irrigation facilities, agriculture in Mizoram is dependent on the monsoon rains. With the coming of the monsoons, a mix of seeds of paddy, oilseed, cotton, oilseeds, pulses, maize, sesame, sugarcane and different seasonal vegetables are sown. The output from the jhumming type of cultivation is low and falls under the category of subsistence farming. Most activities and social calendar of the people including important festivals revolve around the jhumming mode of cultivation.

Mizoram's horticultural industry is of great importance to the state's economic well-being as a whole. The geographical and climatic context is suitable for growing different horticulture crops including fruits- pineapple, mandarin orange, mango, and banana, etc., and of late, Dragon fruit surprisingly flourishes, different seasonal vegetables, spices- ginger, turmeric, and birds eye chilli, plantation crops, medicinal and aromatic plants albeit under protected cultivation whichh has brought good economic returns. A wide variety of flowers thrives in the state while only two types, namely Anthurium and Rose are cultivated on a commercial level.

Mizoram ranks fifth in India with 84.53 percent forest cover, covering a significant portion of its geographic area[225].It is not surprising that the economy of Mizoram gets a good amount of revenue from the forest products sector. Forests offer a variety of raw materials and the forest industry produces a variety of products such as cane works, bamboo works, and woodworks. The products have a strong market

[225] Press Information Bureau, Government of India, Posted On: 13 JAN 2022 2:51 PM , Release ID: 1789635) Visitor Counter: 180722. Full report is available at the following URL: https://fsi.nic.in/forest-report-2021-details

presence both domestically and internationally, indicating a high demand for them. Eco-tourism and sanctuaries have the potential to grow in the state's protected regions.

Industrialisation in Mizoram, particularly the manufacturing sector, has remained at a low ebb because of adverse geographic and infrastructure conditions, such as poor road connection, dearth of mineral deposits, scarcity or absence of necessary raw materials, deficiency of required entrepreneurial and technical skills , shortage of power and other infrastructural prerequisites which has rendered the state as an industrially unviable state. Due to the fact that the mining industry is not being completely utilized, the state of Mizoram's economy receives very little money from this sector. And because of this, the economy of Mizoram has been unable to expand. Due to the region's remote location, the tourist industry's contribution to Mizoram's economy is also very small. This is partly to blame for the state's poor economic performance.

Demography

Demography can be thought of as population studies or, more precisely, as the numerical analysis of human populations with respect to their size, structure, distribution, and vital statistics. Demography plays an essential part in any economy and its development. It helps us understand how far the growth and development of a country's economy is keeping pace with respect to the population. Population has a direct correlation with the income of a country, standard of living, employment as also unemployment and the existence and availability of social and economic infrastructure while at the same time having a direct bearing on the pressures exerted on the ecology. Compared to other states, Mizoram has a comparatively low population density. The state's population is the second lowest in all of India [226]. Mizoram is one of the states that make up India's northeastern area, and it is well-known for having a population density that is lower than that of the majority of the other states in India and the rest of the nation combined. This is one of the reasons why the region is so sparsely populated. There are several factors contributing to its lower population density:

[226] https://mizoram.gov.in/page/know-mizoram viewed on 23.12.22

1. Geographical Location: The state is distinguished by hilly terrain, dense forests, and challenging geographical features. The rugged landscape limits the availability of flat and fertile land suitable for large-scale agriculture and settlement, leading to lower population concentrations.
2. Tribal Population: The people of Mizoram's several indigenous tribes make up the vast bulk of the state's population, with the Mizo tribe being the largest and most dominant. These tribes have distinct cultures, languages, and traditional practices, which have often shaped their preferences for a more dispersed settlement pattern. As a result, the population is scattered across various villages and small towns rather than being concentrated in urban centres.
3. Limited Economic Opportunities: Mizoram's economy is primarily based on agriculture, with limited industrial and economic diversification. The state's remote location, limited infrastructure, and connectivity challenges have hindered significant economic development, resulting in fewer job opportunities. Consequently, people from Mizoram may migrate to other states or countries for better employment prospects, further contributing to the state's lower population density.
4. Traditional Livelihoods: Many communities in Mizoram still practice traditional livelihoods, including jhum cultivation (slash-and-burn agriculture). This agricultural practice requires ample land for rotational farming, which further spreads the population across different areas rather than concentrating them in one place.
5. Migration Trends: Historically, Mizoram has experienced emigration due to various reasons, such as political instability and insurgency during the late 20th century. While the situation has improved over the years, the impacts of past migration trends have influenced the state's demographic patterns.
6. State Policies: The state government has also been promoting decentralized development and rural growth to prevent the over-concentration of population in urban areas. This approach aligns with the state's emphasis on preserving its cultural identity and natural resources.

Due to these factors, Mizoram has a relatively low population density. This low population density may present challenges not only in relation to economic growth and infrastructure advancement but also plays a role in conserving the distinctiveness of the state's cultural heritage and natural environment. The population of Mizoram

increased from 8.89 lakh in the 2001 census to 10.97 lakh in the 2011 Census. Based on the 2011 Census, the population residing in that area amounts to 1,097,206 individuals, with 555,339 men and 541,867 women. Rural populations total 5,25,435 and urban populations total 5,71,771 as of the 2011 Census. With 459,109 men and 429,464 women, Mizoram had a total population of 888,573 in 2001. The rise in population between 2001 and 2011 was 23.48 percent, compared to the previous decade 1991 to 2001, when it was 29.18 percent[227]. In 2011, Mizoram experienced a population density of 52 individuals per square kilometer. in its 21,081 square kilometer territory, a decrease from 0.09 percent in 2001. The 2011 Indian Census shows this density remains consistent across the entire region.

The literacy rate of Mizoram is 91.33 percent, which is significantly higher than the national average of 72.98 percent. This indicates that Mizoram is a very literate state. Literacy rates vary significantly depending on gender; men have a rate of 93.35 percent, while women have a rate of 89.27 percent. These numbers, which are based on the most recent data that is currently available, demonstrate how committed Mizoram is to the field of education. This high literacy rate is evidence that the state places a substantial priority on education. It also demonstrates that a sizeable percentage of the state's citizens are able to read and write effectively.

The higher literacy rate in Mizoram can be attributed to several factors:

1. Emphasis on Education: Mizoram places a strong emphasis on education, and the state government has made substantial efforts to promote and improve educational infrastructure. Schools and colleges are spread across the state, even in remote areas, to ensure access to education for all.
2. Literacy Campaigns: The government of Mizoram, along with various NGOs and community organizations, has undertaken literacy campaigns to improve literacy rates further. These campaigns focus on raising awareness about the importance of education and encouraging people to enroll in schools.
3. Socio-Cultural Factors: Mizoram's strong sense of community and cultural identity plays a significant role in promoting education. Society places a high value on

[227] Ibid

knowledge and learning, leading to a culture that encourages education as a means of personal and community development.

4. Gender Equality: The state has made considerable progress in promoting gender equality, which is reflected in the higher literacy rates for both men and women compared to the national average. Although there is a slight gender gap in literacy, the gap is relatively small, and the government continues to work towards narrowing it further.

In addition to its high literacy rate, Mizoram also exhibits favourable sex ratio indicators. Mizoram has a higher sex ratio of 976, which is much higher than the national average of 943 females per 1000 men. Moreover, Mizoram's child sex ratio of 970 is significantly higher than India's 918[228]. This indicates a relatively more balanced distribution of the male and female population in Mizoram and a comparatively better environment for the survival and well-being of girl children in the state. The higher literacy rate and improved sex ratios in Mizoram reflect the state's commitment to education, gender equality, and social development. These positive indicators are crucial for the overall growth and progress of the state, as they empower its population to participate actively in various sectors of society, the economy, and governance.

Indeed, Mizoram's economy has traditionally been predominantly agrarian, with shifting cultivation, also known as jhum cultivation, being a common practice among the indigenous tribes. However, this traditional agricultural practice has led to several environmental challenges, including deforestation, soil erosion, and environmental degradation. Additionally, due to the reliance on jhum cultivation, crop yields have often been meagre, leading to food insecurity for some communities.

In response to these pressing challenges, the Mizoram government has acknowledged the imperative of shifting away from jhum cultivation and redirecting its focus towards sustainable alternatives. Jhum cultivation, also known as slash-and-burn farming, has posed various ecological and socio-economic issues in the state. It contributes to deforestation, soil degradation, and biodiversity loss, while also presenting challenges in terms of food security and livelihood sustainability.

[228] https://www.censusindia.co.in/states/mizoram viewed on 23.12.22

Recognizing these concerns, the government of Mizoram has undertaken efforts to encourage and support the adoption of sustainable agricultural practices that are environmentally responsible and economically viable. By promoting techniques such as terrace farming, agroforestry, and organic farming, the state aims to mitigate the negative impacts of jhum cultivation while ensuring improved land management and conservation. This transition to sustainable alternatives entails a comprehensive approach that involves not only providing technical know-how to farmers but also establishing supportive policies, offering financial incentives, and fostering community engagement. It aims to strike a balance between agricultural productivity, environmental preservation, and the well-being of local communities. By pursuing this strategic shift, the government of Mizoram endeavours to secure the long-term welfare of both its environment and its populace, steering the state towards a more sustainable and resilient future. Efforts have been made to promote the horticulture and bamboo products industries as viable alternatives to shifting cultivation.

The following are salient aspects pertaining to the latest governmental initiatives:

1. Horticulture: Mizoram's climate and topography are favorable for the cultivation of various horticultural crops such as fruits, vegetables, flowers, and spices. The government has initiated programmes and provided support to farmers to shift from jhum cultivation to more sustainable and economically viable horticulture practices. By promoting horticulture, farmers can have a steady and higher income, leading to improved livelihoods and reduced pressure on natural resources.
2. Bamboo Industry: Bamboo is abundant in Mizoram's forests and has significant commercial potential. The state government has been focusing on promoting the bamboo industry by encouraging bamboo cultivation, establishing bamboo-based enterprises, and supporting the development of value-added bamboo products. This initiative not only helps in conserving forests but also creates employment opportunities and boosts economic growth.
3. Reforestation and Conservation: To combat deforestation and environmental degradation, Mizoram's government has undertaken reforestation programmes and initiatives for conservation. Afforestation efforts involve planting trees, protecting existing forests, and raising awareness about the importance of forest conservation.

4. Agriculture Diversification: The government has been actively working to diversify the agricultural sector beyond shifting cultivation and horticulture. This includes promoting cash crops, introducing modern farming techniques, and providing training to farmers for better agricultural practices.
5. Research and Development: Investment in research and development for sustainable agricultural practices and techniques specific to the region has been another focus. This helps farmers adopt innovative and efficient methods for crop cultivation and resource management.
6. Infrastructure Development: Improving rural infrastructure, such as roads and market linkages, is crucial for enhancing the efficiency of agricultural operations and connecting farmers to potential buyers and markets.

The transition from jhum cultivation to sustainable alternatives is a gradual process and requires consistent efforts from both the government and the local communities. By promoting horticulture, bamboo-based industries, and sustainable agricultural practices, Mizoram aims to alleviate the environmental issues associated with shifting cultivation while improving the economic prospects and overall well-being of its people.

People from a range of ethnic tribes were transported to the state of Mizoram in waves of migration that started in the 16th century but largely took place in the 18th century, making up around 95 percent of the state's population today. Southeast Asia was where the majority of these tribes were from[229]. According to the 2011 Census, Mizoram exhibits the greatest proportion of tribal population among all statesin India. The tribal people are protected as Scheduled Tribes functioning in accordancewith the provisions of the Sixth Schedule of the Indian Constitution. The state is home to a diverse range of indigenous tribal communities, with the Mizo tribe being the largest and most dominant. The tribal population in Mizoram is culturally rich and has a unique way of life, deeply rooted in their traditions, customs, and beliefs.

Mizoram is one of the states whose tribal territories are governed under the rules outlined in the Sixth Schedule of the Indian Constitution. These articles concern the administration and control of tribal regions within certain states. The states under

[229] Ibid.

the Sixth Schedule are often referred to as "Tribal Areas" or "Autonomous District Councils."

The following are the important features pertaining to the Sixth Schedule in Mizoram:

1. Autonomous District Councils (ADCs): The administrative framework of Mizoram has three discrete Autonomous District Councils, namely the Mara Autonomous District Council (MADC), the Lai Autonomous District Council (LADC), and the Chakma Autonomous District Council (CADC). These councils function as integral elements of the state's governance, with each council addressing the distinct requirements and ambitions of the local communities it represents. The Mara Autonomous District Council (MADC), the Lai Autonomous District Council (LADC), and the Chakma Autonomous District Council (CADC) are constituent bodies functioning under the government structure of Mizoram. These councils assume a crucial role in the administration and facilitation of government at the local level.

The Autonomous District Councils serve as a symbol of Mizoram's dedication to decentralized governance, facilitating the inclusion of local people in decision-making processes that have a direct influence on their daily lives. The state's commitment to promoting diversity, encouraging community involvement, and safeguarding the welfare of its residents is demonstrated through its implementation of customized governance systems. Each of these councils has its own jurisdiction over specific tribal-inhabited regions within the state.

2. Governance and Administration: The ADCs enjoy certain legislative, executive, and financial powers to govern and administer the areas under their jurisdiction. They have the authority to make laws and regulations related to various subjects, including land, forests, local governance, and culture, while respecting the overall framework of the Indian Constitution.

3. Protection of Culture and Traditions: The Sixth Schedule guarantees the safeguarding of the rights and interests of tribal communities, their cultural identity, and heritage. It allows the ADCs to preserve and promote their unique customs, traditions, and social practices.

4. Land Rights: The Sixth Schedule also safeguards the land rights of the tribal communities. It helps in preventing exploitation and displacement of the tribal population from their ancestral lands.

5. Safeguards and Representation: The Sixth Schedule provides safeguards for the political representation of tribal communities in the state legislative assembly and Parliament, ensuring that their voices are heard at both the state and central levels of governance.

Overall, the inclusion of Mizoram under the Sixth Schedule is an essential measure to protect and promote the interests of its tribal population, ensuring their social, cultural, and political well-being. It acknowledges the unique historical and socio-cultural context of the state and grants the tribal communities the autonomy to manage their affairs while being an integral part of the Indian nation.

The Mizos were originally animistic, following their own traditional religion known as 'Mizo Religion' or 'Lushai animism.' This indigenous polytheistic ethnic religion was firmly ingrained in their cultural legacy and convictions, and it had a significant impact in shaping their way of life. The Mizo religion just like other religions of tribal ethnic groups appears to have ceremonies and sacrifices[230]. The Mizo religion, similar to other tribal ethnic religions, encompasses various ceremonies and sacrificial practices as integral aspects of their spiritual beliefs. Ceremonies were held on important occasions, such as agricultural events, festivals, and life-cycle milestones, to seek blessings from ancestral spirits and nature deities for prosperity and well-being. Sacrifices, often involving animals or symbolic offerings, are made during these rituals as acts of devotion and appeasement to the spirits, reinforcing the sacred bond between the living and the spiritual realm. These ceremonies and sacrifices hold deep roots within the Mizo cultural identity and assume a fundamental role in maintaining harmony with the natural world and honouring their ancestors. Theprimeval Mizo religion was perhaps 300 years old and had Gods and spirits[231].

[230] Mina Kumari Deka(2012), Religion of the Mizos before their Conversion to Christianity, IJCAES Special Issue on Basic, Applied & Social Sciences, Volume II, October 2012, p. 358
[231] Ibid.

The predominant religion of Mizoram is Christianity and only a small percentage of the inhabitants belong to other religion like Hindus(2,75 percent), Muslims(1,3 percent), Bhuddists(8.5 percent) and others. As the 19th century came to a close and British rule ended, the Mizo people turned to Christianity, which opened the door for Christian missionaries from Britain to enter the region and spread their faith. Following the acquisition of the Lushai Hills, British missionaries undertook the task of evangelizing the Mizo people[232]. Missionaries were initially dispatched to the Lushai Hills by the Arthington Aborigines Mission in London. They did so on January 11, 1894. This date is celebrated in Mizoram as "Chanchintha thlenna Ni," which literally translates to “the emergence of the Gospel”[233]. The Arthington Mission, a Baptist assembly, was superseded by the establishment of the inaugural Presbyterian church in Mizoram, situated in Aizawl, in the year 1897, courtesy of the Calvinistic Methodist Church of Wales. Despite its name, the Arthington Mission belonged to the Baptist denomination. In Lunglei, in the state's south, the Baptist Church subsequently established its headquarters. Also, the Presbyterian and Baptist Church largely dominate the Mizo population, there are other religious denominations including the Catholic Church, the United Pentecostal Church, and Seventh Day Adventists among others which all have substantial membership in the population. The Mizo community comprises diverse Christian denominations, where Presbyterianism holds a dominant presence in the northern area and the Baptist faith prevails in the southern region. The state is one of India's three states where Christians make up the vast majority (87 percent). The others are Meghalaya and Nagaland.

Health Status in Mizoram-Structural Aspect

The administrative division of Mizoram State comprises of 11 districts, 23 sub-divisions, and 26 R.D. Blocks[234]. The southern districts of Lawngtlai and Siaha in Mizoram are currently home to three functioning Autonomous District Councils, namely Lai, Chakma, and Mara. There are 23 incorporated towns and 830 rural

[232] J. Meirion Lloyd (1991), *History of the Church in Mizoram: Harvest in the Hills*. Synod Publication Board. pp. 17–23.
[233] Press Trust of India (11 January 2013). "Mizoram observes Missionary Day" available on http://www.in.com/news/current-affairs/mizoram-observes-missionary-day-50165888-in-1.html viewed on 23.12.22
[234] http://slbcne.nic.in/mizoram/MIZORAMstateprofile.pdf viewed on 23.12.22

communities spread around the state, 704 of which have permanent residents. There are a total of 222,853 households that make up the state's population[235]. Based on the 2011 Census, the urban population experienced a decadal growth rate of 27.43 percent, while the rural population grew at a rate of 18.2 percent during the period of 2001-2011. In addition, there were 976 females for every 1000 males. According to the Economic Survey 2021–22, the state's per capita income is Rs. 187327 (in 2018 prices). According to available data, the poverty rate for households is 19.63 percent. Additionally, the total birth rate and death rate are 18.05 and 5.01, respectively[236].

Ensuring the well-being and health of any community is essential for achieving sustainable development and contributes towards socio-economic growth and prosperity. Providing comprehensive, affordable, and easily accessible quality healthcare services is imperative for promoting and maintaining health, preventing, controlling, and managing disease, reducing incapacity and untimely demise, and attaining health equity for all sections of the community.

The Health Department of Mizoram with its two Directorates-the Directorate of Health Services and the Directorate of Hospital and Medical Education, has taken significant strides in establishing a strong institutional framework in order to address the healthcare requirements of its populace. This framework comprises several key entities that work in synergy to provide comprehensive healthcare services:

1. Directorate of Health Services (DHS): The DHS serves as the backbone of the state's healthcare system, responsible for planning, implementing, and monitoring various public health programmes. It oversees primary healthcare centres, community health centres, and district hospitals, working towards equitable healthcare access for all residents. The directorate focuses on disease control, child and maternal health, methods of contraception, and vaccination, and other preventive and promotive healthcare initiatives.
2. Directorate of Hospital and Medical Education (DHME): The DHME's primary objective is to oversee medical education, training, and research in the

[235] Statistical Handbook Mizoram 2020

[236] *Overview of Health Status in Mizoram,* Department of Health and Family Welfare, Government of Mizoram 2018

state. It is responsible for the functioning of government hospitals, medical colleges, and other healthcare facilities. The directorate ensures the availability of qualified medical professionals and strives to maintain high standards of education in medicine and patient care.

3. AYUSH Directorate: The AYUSH Directorate advocates for traditional Indian medical practices like Ayurveda, Yoga, Unani, Siddha, and Homeopathy. It regulates and supports AYUSH practitioners, facilitates the integration of AYUSH with modern healthcare practices, and encourages the use of traditional remedies and therapies to enhance healthcare outcomes.
4. Zoram Medical College: Zoram Medical College, the solitary medical institution in the state, holds a pivotal position in producing a skilled healthcare workforce. The college provides undergraduate and postgraduate medical education, enabling students to become competent doctors and specialists. It also facilitates research and innovation in the field of medicine.
5. Food & Drugs Administration (FDA): The FDA is responsible for guaranteeing the security, effectiveness, and efficiency of pharmaceutical drugs and food products available in Mizoram. It enforces regulations related to drug manufacturing, distribution, and sale, as well as food safety standards to protect public health.
6. Mizoram State AIDS Control Society (MSACS): MSACS leads the state's efforts in combating HIV/AIDS by implementing prevention, care, support, and treatment programmes. It works closely with various stakeholders to raise awareness, conduct screenings, and provide support services to those affected by HIV/AIDS.

The collaboration of these institutions and units is aimed at offering an extensive array of healthcare amenities to the residents of Mizoram. This approach covers various aspects of healthcare, including:

1. Palliative Care: The healthcare system emphasizes palliative care for patients suffering from chronic, life-limiting illnesses. It focuses on pain management, emotional support, and enhancing the well-being of patients and their families.
2. Preventive Care: Mizoram's healthcare system places a strong emphasis on preventive care. Through immunization drives, health screenings, health

education, and awareness campaigns, the state endeavours to mitigate the transmission of infectious illnesses and promote healthier behaviours.

3. Curative Care: The healthcare system provides a diverse array of therapeutic services, encompassing the identification and management of medical conditions. various illnesses, medical conditions, and injuries. It ensures access to medical interventions, surgeries, and advanced treatments to address healthcare needs effectively.
4. Rehabilitative Care: Post-treatment rehabilitation services are offered to patients to aid in their recovery and reintegration into daily life. Rehabilitation focuses on physical, mental, and social aspects, encompassing physiotherapy, occupational therapy, speech therapy, and counseling.
5. Therapeutic Care: Various therapeutic interventions are available to patients to aid in their recovery and emotional well-being. These may include psychological counseling, behaviour therapy, and other supportive therapies tailored to individual needs.

Table 4.2

Government Hospitals (2020 – 2021)

Sl.No	Hospital	Bed Capacity
1	Aizawl Civil Hospital	275
2	Kulikawn Hospital	50
3	Lunglei Civil (District) Hospital	150
4	Champhai District Hospital	90
5	Serchhip District Hospital	60
6	Saiha District Hospital	100
7	Kolasib District Hospital	30
8	Mamit District Hospital	30
9	Lawngtlai District Hospital	35
10	Saitual District Hospital	30
11	Hnahthial District Hospital	30
12	Khawzawl District Hospital	21
13	Referral Hospital, Falkawn	236
14	Mizoram State Cancer Institute	50

Sl.No	Hospital	Bed Capacity
15	Integrated Ayush Hospital at Thenzawl	50
Total		1267

Source: Economic Survey of India 21-22

To support the efficient functioning of these healthcare pillars, the institutional framework also focuses on health management, health financing, and health information systems. Adequate allocation of material and human resources is ensured to maximize the healthcare delivery system's effectiveness and reach.The collective efforts of these entities contribute to the overall improvement of healthcare services in Mizoram, addressing various health challenges and striving towards achieving better health outcomes for its population.

According to the Economic Survey of India,21-22, there are 42 hospitals in Mizoram-15 Government Hospitals and 27 Non-Government Hospitals (See Tables 4.2 and 4.3). There are a total of 379 health sub-centres and 170 sub-centre clinics, along with 61 primary health centres, 9 urban public health centres, and 9 community health centres[237]. From April 1, 2020 to March 31, 2021, a total of 720 patients were referred outside the state of Mizoram for investigation and treatment[238]. Maximum number of patients in Mizoram are referred to Tata Memorial Centre located in Kolkata.

Issues of Healthcare Specific to Mizoram

Mizoram has been recognized as a frontrunner amongst India's smaller states and as the best overall performer in the NITI Aayog State Health Index Report 2019-2020 as well as Incremental Performance(18.4 percentage points)[239] with the health index of 75.77 increasing from 73.70 to 74.97 points from 2015-16 to 2017-18[240] .The state has been categorized as the Most Improved state along with Telangana in terms of health outcomes with an improvement from the third rank to the first rank

[237] The Mizoram Gazette Extraordinary No.B.19011/6/2019-HFW,the 20th October,2021.
[238] Economic Survey of Mizoram,2021-22
[239] https://www.niti.gov.in/sites/default/files/2021-12/NITI-WB_Health_Index_Report_24-12-21.pdf viewed on 23.12.22
[240] Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog. Available at http://social.niti.gov.in/uploads/sample/health_index_report.pdf

rank to the first rank and an increase of more than 4.0 percent points with base year of 2018-2019 and reference year being 2019-2020. Mizoram's performance in the areas of Governance and Information was among the best of the smaller states, and it had one of the largest percentage increases.

Table 4.3
Non-Government Hospitals (2020 – 2021)

Sl.No	Hospital	Bed Capacity
1	Durtlang Synod Hospital	355
2	Serkawn Christian Hospital	100
3	Greenwood Hospital	87
4	Adventist Hospital	55
5	Nazareth Hospital	38
6	Bethesda hospital	60
7	Aizawl Hospital	145
8	Care Hospital and Research Centre	21
9	Grace Nursing Home	32
10	Ebenezer Medical Centre	116
11	Maraland Gospel Centenary Hospital	60
12	Lairam Christian Medical Centre	70
13	Alpha Hospital	40
14	Med-Aim Adventist Hospital	22
15	B.N.Hospital	61
16	Nazareth Nursing Home	20
17	Hope Hospital.Lunglei	35
18	Faith Hospital,Lunglei	35
19	D M Hospital,Champhai	30
20	City Hospital,Aizawl	62
21	Redeem Hospital,Aizawl	16
22	LRM Hospital ,Aizawl	67
23	John William Hospital,Lunglei	30
24	Mercy Hospital,Serchhip	27
25	Rosewood Hospital, Saron Veng, Aizawl	18
26	Trinity Hospital, Silaimual, Melthum	77
27	Christian Hospital, Lawngtlai	40
Total		1749

Source: Economic Survey of Mizoram 2021-22

Within the classification of Smaller States, the Key Inputs and Processes Domain Index Scores showed that the state with the highest performing economy was Mizoram, with a score of 61.90, while the state with the lowest performing economy was Manipur, with a score of 23.46. Mizoram's 2019-20 Overall Performance was exceptional, with 60 percent of indicators in top one-third group, achieving the highest Index Score of 75.77. However, it is important to note that this score falls short of the frontier score of 100. This implies that even states with the best overall performance may need to focus on improving certain indicator areas[241].

As per the NITI Ayog Report[242], Mizoram also observed the highest immunization coverage of 100 percent both in 2014-15 and in 2019-20 and secured the second-best position in Performance in Health Outcomes Domain. Mizoram exhibited the greatest proportion of institutional deliveries, at 100.0 percent, during both the 2014-15 and 2019-20 periods. Mizoram was positioned at the top rank within the Governance and Information domain, according to the data from the Reference Year (2019-20), while Nagaland was positioned at the lowest rank. This was based on the results of the Reference Year. In this specific category, Mizoram earned the best possible score of 70.38 points. In the category of Smaller States, Mizoram and Nagaland exhibited the greatest accessibility of FRUs (First Referral Units) in 2014-15, surpassing the required number by one and a half times. In 2019-20, Mizoram demonstrated an even higher level of accessibility, exceeding the required number by three times, which was the most notable among the nation's More Compact States. Mizoram is among the six smaller states that have achieved universal birth registration, indicating a 100 percent registration rate. Mizoram has a health indicator of 75.23 percentage points in antenatal care registrations within the first trimester. From 2014 to 2019, Mizoram has achieved a 100 percent level of birth registration. Mizoram ranks among six states and Union Territories with remarkable progress in Health Index Score from 2017-18 to 2018-19.

[241] https://www.niti.gov.in/sites/default/files/2021-12/NITI-WB_Health_Index_Report_24-12-21.pdf viewed on 24.12.22

[242] Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog. Available at http://social.niti.gov.in/uploads/sample/health_index_report.pdf

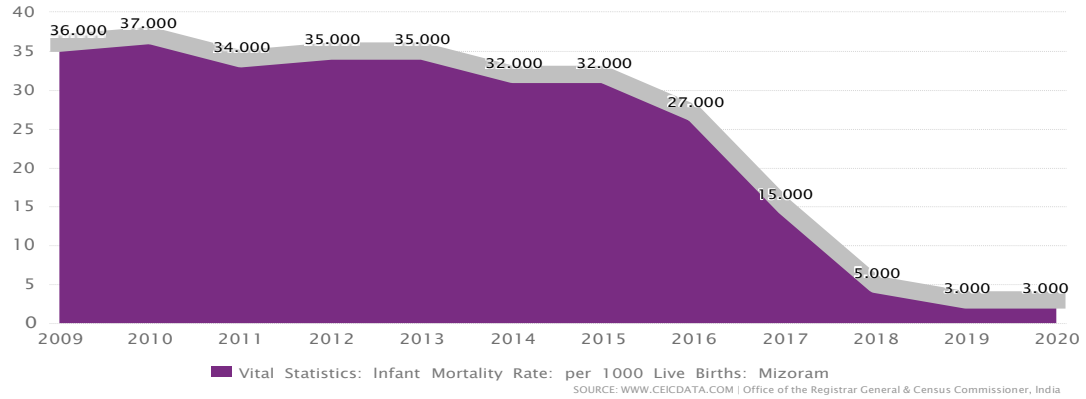
There is marginal improvement in the maternal& child health program indicators.The percentage of newborns that are underweight has barely declined from 4.6 percent to 4.7 percent; institutional births have fallen from 96.3 percent to 95.1 percent; and the percentage of children who received all recommended vaccinations has decreased by roughly 9 percent from 100 percent in 2016–17 to 90.8 percent in 2017–18[243]. In the same time frame that maternal health has become a problem, the success rate of treating newly microbiologically proven cases of tuberculosis has dropped from 90.6 percent to 73.5 percent which is mainly due to diminishing returns in health systems [244].

Key health indicators in Mizoram are comparable to or progressively better than national averages [245]. In 2014-15, Mizoram had a 4 points lower death rate for children under five and a 28.1 percent incidence of stunting compared to the national average of 38.4 percent. Mizoram's total fertility rate (TFR) in 2014– 15 was 2.3, almost in line with the 2.2 national average. Despite the fact that Mizoram's Health Sector is operating extremely well and is even listed among the frontrunner states, there are significant inequalities between the state's rural and urban areas in Mizoram.

[243] Mizoram Health Systems Strengthening Project Environmental and Social Management Framework Executive Summary,Nov 2020 https://documents1.worldbank.org/curated/en/970741605787131389/pdf/Revised-Environmental-and-Social-Management-Framework-ESMF-Mizoram-Health-Systems-Strengthening-Project-P173958.pdf p. 5
[244] Ibid
[245] Ibid

Figure No.4.1

Infant Mortality Rate from 1998-2020: Mizoram



Source: https://www.ceicdata.com/en/india/vital-statistics-infant-mortality-rate-by-states/vital-statistics-infant-mortality-rate-per-1000-live-births-mizoram

In 2015, Mizoram demonstrated an Infant Mortality Rate (IMR) of 32 per 1000 live births. (Fig.4.1), while the national average was 37; The data for Mizoram in 2020 was reported at 3.000, which remained unchanged from the previous year 2019. In contrast, the national average for 2019 was 30[246].

Urban areas have a lower death rate for children under five, with 35 per 1,000, compared to 58 per 1,000 in the rural areas. Additionally, 33.7 percent of children in rural regions and 22.7 percent of children in urban areas suffer from stunting. Maternal mortality rates are 135 in urban areas, while assisted births are 97.9 percent. Compared to the national average, Mizoram has greater coverage rates for services involving maternal health care and vaccinations. At least four prenatal visits were made by 61.4 percent of mothers during the 2015–2016 school year, and 79.7 percent of births took place at a medical institution. These percentages compare well to the national averages of 51.2 percent and 78.9 percent, respectively[247].

Mizoram is now positioned in the Front-Runners category of the Sustainable Development Goals index, where it holds the position of ranking number 12, and its score falls somewhere in the region of 65-99[248]. Mizoram is considered a top gainer

[246] https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1796436 viewed on 22.01.23
[247] Ibid
[248] https://sdgindiaindex.niti.gov.in/#/state-compare?goal=3&area=IND015&timePeriod=2020 viewed on 23.12.22

state since the state has improved its ranking dramatically from 56 in 2019-20 and 68 in 2020-21 to its current rank of 12.

Along with several achievements, there are also the toughest challenges in the health sphere ranging from transmittable illnesses like HIV/AIDS infection, Malaria and non-transmittable illnesses like Cancer arising from the rampant use of Tobacco products, cardiovascular and lifestyle and age-related diseases, malnutrition, etc. Mizoram has the highest anticipated adult HIV prevalence in the country in the year 2020, with 2.37 percent, followed by other states in the NER. Nagaland (1.44%) and Manipur (1.15%).Andhra Pradesh (0.66%), Meghalaya (0.53%), Telangana (0.48%) and Karnataka (0.45%) were the other States with adult prevalence of HIV higher than 0.40%.

At a national scale, the projected prevalence of HIV among adults aged 15-49 years has exhibited a downward trend since the zenith of the epidemic in 2000, where the estimated prevalence was 0.55 percent. This trend has persisted through the years, with the prevalence rate declining to 0.32 percent in 2010 and further to 0.21 percent in 2021. Adult HIV prevalence is greatest in the North Eastern States, with Mizoram recording a rate of 2.70 percent, followed by Nagaland at 1.36 percent and Manipur at 1.05 percent. Andhra Pradesh, Telangana, and Karnataka in the south follow suit with rates of 0.67 percent, 0.47 percent, and 0.46 percent, respectively. About 24 lakh individuals, also known as PLHIV, have been estimated to be infected with HIV[249].

HIV infection and related health issues including mortality is a matter of pressing concern, particularly for Mizoram where despite concerted efforts to fight the HIV/AIDS epidemic both from public organizations such as NACO at the central level, State Aids Control Society at the state level (in the case of Mizoram, MSACS), in addition to voluntary and non-governmental organizations.

During the third stage of the National AIDS Control Programme– III (NACP–III) the HIV management, prevention and control programme was decentralized to the district level in 2008–09. This decentralization was decisive for implementing significant organizational changes and took place throughout the

[249] India HIV Estimates Report 2019, National AIDS Control Organisation & ICMR-National Institute of Medical Statistics ,Ministry of Health and Family Welfare, Government of India.

period of time from 2007 to 2012[250]. As a result, the HIV Sentinel Surveillance data from 2004-2006 was used to classify each district in the country into one of four distinct categories: Category A, Category B, Category C, or Category D, depending on the number of HIV-positive persons in a particular district. Overall, 195 districts across 22 states have been singled out as critically in need of immediate assistance and as such, 156 districts have been placed in Category A, and 39 districts have been placed in Category B districts[251]. Decentralized HIV/AIDS programme assistance, surveillance, and integration units (DAPCUs) were established by the NACO in 188 of the 195 districts to provide programmatic supervision. This was done in order to provide programmatic oversight.

As regards Non-communicable Diseases (NCD), Mizoram is among the states with the highest cancer incidence in the country[252]. Age-adjusted or age-standardized (direct standardization to the global standard population) rates per 100,000 people are common ways to report cancer incidence rates. This is done so that countries and states with vastly differing populations in terms of age range may still be compared with one another[253]. In Mizoram, the age-adjusted rate (AAR) is 207.0 per 100,000 in men but only 172.3 per 100,000 in women[254]. The rate of male cancer cases is highest in Aizawl district compared to the rest of India with an AAR of 269.4, and it has the second highest cancer burden in females with an AAR of 214.1 for every 100,000 male and female residents[255] respectively. The state is confronted with a major problem of high incidence of cancer, Aizawl city has even earned the unfortunate

[250] https://mizoramsacs.org/about/dapcu/ viewed on 23.12.22
[251] https://mizoramsacs.org/about/dapcu/ viewed on 23.12.22
[252] Government of India. 2017. A Report on Cancer Burden in North Eastern States of India, 2017. National Centre for Disease Informatics and Research and Indian Council of Medical Research. http://www.ncdirindia.org/NE_report.aspx
[253] Three-year report of population-based cancer registry 2012-14, Indian Council of Medical Research. http://ncdirindia.org/NCRP/ALL_NCRP_REPORTS/PBCR_REPORT_2012_2014/ALL_CONTENT/ PDF_Printed_Version/ Chapter1_Printed.pdf p xi
[254] Profile of Cancer and Related Health Indicators in the North East Region of India-Mizoram,ICMR-National Centre for Disease Informatics and Research https://ncdirindia.org/All_Reports/NorthEast2021/resources/NE_chapter6.pdf p .96
[255] https://ncdirindia.org/All_Reports/Report_2020/resources/NCRP_2020_2012_16.pdf p xiv viewed on 23.12.22

recognition of being referred to as the cancer capital of India by a number of prominent media outlets [256].

A glance at the NCD Risk Factor Profile of Mizoram State (See Table 4.4) shows the Behavioural and lifestyle-related causes of NCDs highlighting the rampant use of Tobacco and alcohol consumption, highlighting the metabolic risk factors. Also, a study[257] has shown that although tobacco use was widespread in both the male and female population, smoking being more pronounced among males (42.3 percent) while chewing is more common in women (27.9 percent) showing the presence of gender difference in tobacco usage pattern. The frequency or occurrence of tobacco consumption is presently at 58.7 percent, with a slightly higher rate observed for smoked tobacco (34.4 percent) compared to smokeless tobacco (33.5 percent)[258].

Table 4. 4
Mizoram: NCD Risk Factor Profile

Factors related to lifestyle	
Tobacco Usage	
Existing usage of Tobacco -both smoking and non-smoking use (15 years and above) (percent)	
Total	58.7
Males	64.9
Females	52.4
Tobacco use through smoking(age 15 or above) (in percentage)	
Total	34.4
Males	54.1
Females	14.3

[256] Health Policy of Mizoram State,2022,Health and Family Welfare Department,Government of Mizoram.
[257] HK Chaturvedi ,RK Phukan ,K. Zoramtharga , NC Hazarika ,J. Mahanta(1998),Tobacco Use in Mizoram, India: Sociodemographic Differences in Pattern. Southeast Asian J Trop Med Public Health. 1998 Mar;29(1):66-70. PMID: 9740271.
[258] Indian Council of Medical Research-National Centre for Disease Informatics and Research-Profile of Cancer and Related Health Indicators in the North East Region of India 2021:Mizoram,Chapter 6.

Non-smoking form of Tobacco Usage (15 years and above) (in percentage) Total Males Females	33.5 21.3 46.0					
Alcohol consumption						
Age 15 years or above (percent)	Urban		Rural		Total	
	Men	Women	Men	Women	Men	Women
	22.8	1.0	25.2	0.8	23.8	0.9
Metabolic risk factors						
Body Mass Index(Obesity) >25 s (age 15-49 years) (in percentage)	38.3	29.7	24.2	16.9	31.9	24.2
Hypertension for 15 years or above (in percentage)	28.7	21.0	21.1	13.5	25.2	17.7
Random increased blood glucose - 15 years or above (in percentage)	16.4	15.0	14.3	12.3	15.4	13.8
Pollution of Air (Disability Adjusted Life Years DALYs) per 100,000	2003.7					

Source: Indian Council of Medical Research-National Centre for Disease Informatics and Research-Profile of Cancer and Related Health Indicators in the North East Region of India 2021:Mizoram,Chapter 6.

The reported incidence of DALYs (Disability-adjusted Life Year) attributable to air pollution is 2003.7 per 100,000. The rate of alcohol use among people aged 15 and above was 23.8 percent among males, whereas the proportion of females who reported consuming alcohol was insignificant[259]. The prevalence of obesity among males aged 15-49 years is approximately one-third (31.9 percent), which is significantly higher by a margin of 7.7 percent compared to the prevalence among females (24.2 percent). When comparing the rates of hypertension in men (25.2 percent) and women (17.7 percent), there is a significant gender gap of 7.5 percent[260]. The incidence of elevated blood glucose levels is reported to be 13.8 percent among females and 15.4 percent among males[261].

[259] Ibid.
[260] Ibid.
[261] Ibid.

According to the Mizoram: Disease Burden Profile ,1990 to 2016[262] Malaria, infection of the lower respiratory tract, and COPD (Chronic Obstructive Pulmonary Diseases) are primary etiologies of untimely mortality, exerting an equivalent impact on both genders. The two primary factors contributing to mortality, diarrhoea (30.6 percent) and newborn diseases (34 percent), together account for 12 percent of all fatalities that occur within the age range of 0 to 14 years. Diarrhoea, AIDS and HIV, TB, and lower respiratory diseases collectively account for 13.8 percent of mortality among those aged 15 to 39. This accounts for 13.7 percent of all deaths. Despite the state's comparatively minor anaemia prevalence (22.5 percent) for women, 17.7 percent for children under the age of 5, and 10 percent for males), a greater percentage of people in the state are overweight or obese than the average for the nation (21 percent), this assertion holds veracity in relation to both the male and female genders. When everything is taken into consideration, noncommunicable maladies constitute a majority exceeding fifty percent of the state's disease burden.

In summation, the present chapter focuses on providing an overview of Mizoram State's demographics touching upon its physical geography and location, a brief summary of the political and administrative history of Mizoram, the status of Communication and Transport services and facilities available within the state, Socio-economic features of the state, the general demography, health status and growth of Healthcare in Mizoram, institutional mechanism of healthcare service as well as pertinent issues of healthcare specific to Mizoram-including the existing challenges and problems faced with respect to healthcare delivery system.

[262]The burden of Disease initiative report: Mizoram http://www.healthdata.org/sites/default/files/files/Mizoram_-_Disease_Burden_Profile___percent5B1percent5D.pdf viewed on 23.12.22.

CHAPTER V
WORKING OF HEALTH SUB-CENTRES IN MIZORAM- ISSUES AND CHALLENGES

The previous chapter has dealt with a discussion on the profile of Mizoram State focussing on its geography, brief political and administrative history, status of Communication and Transport, socio-economic characteristics, demographic information, healthcare settings, healthcare institutions, and specific healthcare challenges. These challenges encompass a range of issues, including the transmission of diseases such as HIV/AIDS and malaria as well as non-contagious diseases like cancers of various kinds resulting from extensive tobacco usage, cardiovascular issues, lifestyle and age-related illnesses, and malnutrition.

The present chapter is an attempt to provide a conceptual overview of the working of Health Sub Centres in Mizoram, with some information about the genesis, growth, and evolution of primary health care delivery system in Mizoram. Given the exhaustive nature of an in-depth study like this, there is a need to limit the geographical parameters of the study. This study focuses on the management of primary healthcare services at the Sub Health Centre Level in both Aizawl District and Lunglei District. These two districts have been chosen since they represent the northern and southern parts of Mizoram respectively being the state capital and the headquarters in the northern side of the state and Lunglei District, the southern headquarters representing the 'South Mizoram', the most expansive district in terms of size, and the seat of the High-Powered Committee[263].

The chapter discusses the present scenario of primary healthcare in connection to the essential as well as desirable role and functions carried out by the Sub Health Centres/Clinics now operating in Mizoram, which serves as the initial interface between the general people and the healthcare sector.The chapter also discusses the implementation of Ayushman Bharat Programme - Health and Wellness Centres in Mizoram and the subsequent changes in the nomenclature and functioning of Health Sub-Centres in Mizoram. The chapter also identifies the problems and obstacles

[263] See Appendix No.1, District Map of Mizoram

related to the provision of primary healthcare in Aizawl and Lunglei and, in light of the findings, gives some suggestions. The indicators and dimensions have been examined when examining the Primary Health System in Aizawl and Lunglei, specifically in the chosen locations, as representations of the circumstances in several districts as well as the state of Mizoram overall. The chapter also lists any gaps or other issues that have been investigated in order to offer potential recommendations for corrective actions.

Mizoram is one of the relatively newer states in the country. As per the comprehensive data gathered during the 2011 Census, Mizoram emerges as the seventh most urbanized state in the country, boasting a notable urbanization rate of 51.51 percent. The state has 1,091,014 residents. 5,61,977 people live in urban areas in the state, making up 51.51 percent of the total population. There are a total of 830 villages and 11 districts in Mizoram. Additionally, there are 26 Rural Development Blocks, 23 Sub Divisions, and 3 independent District Councils[264]. For the decade 2001–2011, urban population growth was 27.43 percent, compared to rural population increase of 18.2 percent. 976 females for every 1000 males is the sex ratio. According to the Mizoram Economic Survey for 2021-22, the state's per capita income at constant prices for 2019–20 is Rs. 1,31,781 (provisional). In 2016, the proportion of individuals residing below the Poverty Line was recorded at 19.63 percent. Regarding demographic indicators, the Birth Rate stood at 15.5 (according to SRS 2016), while the reported Death Rate stood at 4.2 (according to SRS 2016), and the Doctor-to-Population Ratio was 1:1633 according to the Indian Medical Association (1:2997 for the government), and the Nurse-to-Population Ratio, inclusive of Auxiliary Nurse Midwives (ANM), was 1:320 (1:2039 for the government). (See Table No.5.1)

[264] www.nic.in viewed on 7th August,2022

Table No. 5.1
Mizoram: Basic Data

Area	21,087 square kilometer
The population of the State	21,087 sq.km 1,091.014 (as per 2011 Census)
Districts	11
District Councils	3
Sex Ratio	976 females per 1000 males
Density of population (in sg.km)	52
Literacy Percentage	91.33 percent
Per Capita Income	Rs 1,31,781
Percentage of BPL	19.63 percent (2016)
Birth Rate	15.5 (SRS 2016)
Death Rate	4.2 (SRS 2016)
Natural Growth Rate	11.3 (SRS 2016)
Doctor Population Ratio	1:1633 IMA (1:2997 government)
Nurse Population Ratio	1: 320 with ANM (1:2039 government)

Source: Compilation of the Department of Health and Family Welfare, Mizoram in *Overview of Health Status in Mizoram,*2018, Official Website of Directorate of Economic and Statistics,Mizoram, Census of India and Economic Survey of India

Aizawl

The most populous city in Mizoram is Aizawl, which serves as the country's capital. It is situated in the northern central region of the Mizoram state on a ridge at an elevation of 3,715 feet. Durtlang peaks envelop it on the north. The hill city hasa view of the river Tlawng valley and the farther-off blue hill ranges. Due to its geographic position and height, it enjoys a warm, subtropical climate, with summertime highs of 30°C and wintertime lows of 11°C. Aizawl is connected by road with Silchar through National Highway 54, with Agartala through National Highway 40 and with Imphal through National Highway 150. It is air- linked by daily flights from Kolkata and Guwahati.

As per 2011 Census, the population of Aizawl is 291,822. Sex ratio is 1029 per 1000 males. Average literacy rate of Aizawl city is 98.80 percent of which male and female literacy was 99.30 and 98.31 percent. It is the district headquarters and as such the centre of administration containing all the important government offices, state assembly house and civil secretariat. Besides being an administrative centre, it is also a cultural and religious centre of the state. The heterogenous population of Aizawl strongly reflects the different communities of the ethnic Mizo people[265].

Administrative Structure in Aizawl

The formation of the Aizawl Municipal Corporation (AMC), marks a significant achievement in the realm of administration within the Aizawl District. Formerly known as the Aizawl Municipal Council, this entity currently functions as the operational Municipal Authority within the confines of Aizawl City. The Aizawl Municipal Corporation serves as the governing body responsible for the urban administration of Aizawl.

Following the 2010 election for the AMC, where the Congress and ZNP coalition secured a majority, the initial composition included 19 members. The responsibility for overseeing the operations of the AMC office is vested in the Mayor, Deputy Mayor, and Commissioner. The Corporation is comprised of 19 elected members who represent the 19 city wards, along with additional members nominated by the Mizoram governor. Notably, the Corporation promotes gender representation and inclusivity, with six seats, comprising a proportion of 33 percent of the overall membership, specifically designed for female individuals. The rotation of these seats occurs at regular intervals of five years. The duration of the Corporation's term extends over a period of five years. There is a Ward Committee in every ward that consists of a chairman, who is an elected councillor from that ward, and two members each from all the local council within the ward.

[265] Censusindia.gov.in/2011census/dchb/DCHB_A/.../1503_PART_A_DCHB AIZAWL.pdf viewed on 19.10.2018.

Within the Aizawl Municipal Corporation structure, there are a total of 83 local councils, each with a five-year term. The councils assume a crucial role in the realm of urban local governance, thereby making significant contributions to the multifaceted administration and progressive advancement of the urban landscape[266].

Lunglei

The notified town of Lunglei is positioned within the southwestern region of Mizoram. Its geographical coordinates span between latitudes 22.30N and 23.18N, as well as longitudes 92.15E and 93.10E. The term 'South Mizoram' is commonly used to denote a specific administrative division known as the Lunglei Division. This division encompasses three distinct districts that together constitute the southern region of Mizoram: Lunglei, Lawngtlai, and Saiha. This delineation of territorial boundaries of Mizoram unfolds with the Mamit District heralding the northern edge, while the oriental demarcations are delineated by the strategic positions occupied by Aizawl and Saiha districts. To the south, the border abuts Myanmar, while to the west, the frontier is characterized by the adjacency of Bangladesh. The territorial expanse of the Lunglei District blankets a total land area encompassing 4,536 square kilometers., thereby holding the distinction of being Mizoram's largest district in terms of land area.

Lunglei district boasts international borders, extending 35 kilometers in tandem with Myanmar and an extended adjacency of 107 kilometers alongside Bangladesh. The robust geographical expanse of the Lunglei District underscores its significance within the landscape of Mizoram. The town of Lunglei, which serves as the district's administrative centre, is whence the district gets its name. According to the data obtained from the 2011 Census, it has been determined that the population residing within this district amounts to a total of 161,428 individuals.

Lunglei town's literacy rate is 98.27 percent, more than the state's average of 91.33 percent[267]. The district has 92,676 rural residents and 68,752 urban residents. 36 people live there per square kilometer, and 88.86 percent of the population is

[266] https://amcmizoram.com/ viewed on 19.10.2018.

[267] Government of India, Census 2011: Mizoram population 2011.Retrieved September 9, 2020 from https://www.census 2011.co.in>state

literate[268]. There are four rural development blocks and three subdivisions in the current Lunglei district. Aizawl and Lunglei are separated by 235 km (through Hnahthial) and 165 km (by Thenzawl), respectively. Agriculture is the predominant activity in the district.

Origin of Primary Heath Care in Mizoram.

Modern health care services in Mizoram are commonly attributed to the colonial rulers and Christian missionaries. Until 1894, Mizoram did not have any modern medical infrastructure[269]. The proposal for the selection of the first Medical Officer of Mizoram was made after the subsequent British Expedition against the Mizo (1889-1890) in 1890. However, there are no records available regarding the precise titles and dates of the proposal. Since then, the seeds of Health Care Services continue to germinate in Mizoram [270]. The early missionaries often had a good understanding of tropical hygiene and medicine, and they would commonly address minor health issues among the Mizo population by providing simple medicines and remedies that they had brought with them. The medicines provided by the missionaries effectively healed minor illnesses and and were instrumental in fostering a mutual partnership built on reciprocal trust and dependence between the missionaries and the Mizos. This bond was particularly strong due to the Mizos' appreciation for the care and kindness extended towards them[271].

Before the missionaries arrived on the scene, the mizo people were by and large ignorant of modern medicines and doctors, they had little knowledge about the importance of proper nutrition, personal hygiene, sanitation, healthy diet etc. The Mizos held the view that many spirits held sway over daily life and could only be appeased by ritual sacrifices. People there thought that evil spirits lived in every large tree, hill, and every large stone and that these spirits were to blame for every disaster that fell upon them. They were superstitious and cautious so as not to anger

[268] See https://www.census2011.co.in/census/district/391-lunglei.html for details
[269] http://shodhganga.inflibnet.ac.in/bitstream/10603/60708/10/10_chapter percent202.pdf viewed on 19.10.2018.
[270] B.Thangdailova (2003) '*Modernization of Health Care Services in Mizoram*' in R.N Prasad and A.K.Aggarwal (ed.). Modernization of the Mizo Society, Mittal Publications, New Delhi, p. 28
[271] See J.M Lloyd (1991) '*History of the Church in Mizoram'*(Harvest in the Hill) Synod Publication Board,Aizawl, p.31

the spirits and bring disaster upon themselves. As such, each village had a *bawlpu* (priest or exorcist) to deal with the spirits that caused such diseases and afflictions[272].

The British missionaries were influential in changing the common perception of health, hygiene and the causes of diseases and ailments of the Mizo people, by establishing a relationship of trust and understanding with the Mizo people by bringing the Gospel to them and by showing them the power of sincere prayers and the efficacy of modern medicines in healing diseases and ailments The first Christian missionaries, J.H Lorraine and F.W Savidge (1894-1897), known affectionately as 'Sap Upa and Pu Buanga' were deeply concerned about the health education or lack of it, among the Mizo. They educated the people and distributed medicines among the sick that people found to be quite effective.

Rev D.E Jones and Rev E. Rowland were also responsible for educating the Mizo on the effectiveness of modern medicines. It was Reverend D.E. Jones who invited Dr. Peter Fraser to Mizoram, who later became 'The Beloved Physician' of the Mizos[273]. Dr. Peter Fraser's brief but outstanding service to the people of Mizoram in the field of medicine stands out. Since there was not a single hospital, a tent was erected where Dr Fraser would open a free clinic, in Mission Veng, treating 50-100 patients in a day. The kindness and empathy he afforded to his patients was remarkable, he would gently explain the health conditions to the patients, with patience and understanding and giving out medicines to the sick and the needy. He also made home visits during day as well as night, if essential, simultaneously preaching the gospel and providing necessary medical care, like a true Christian. In 1910, he opened a dispensary and kept beds ready in it for those who needed admission[274].

[272] See V.L Siama (1978) '*Mizo History'*, Aizawl Reprint, p.25

[273] J.V.Hluna(2016) '*Mizoram Welsh Missionary-te Chanchin'*(Revised and Enlarged),The Synod Press, Aizawl, Mizoram.pp.110-113

[274] See Zarzoliana (2005) '*Availability and Utilization of Healthcare Facility in Mizoram: A Geographical Analysis',* (Unpublished Thesis) & Primary Survey, 2012

Table No. 5.2

Missionary-Operated Health Facility, North Mizoram

Name of Health Unit	Year of inception/establishment	Remarks
Mission Veng Health Clinic	1897	Established upon Peter Fraser's arrival as the first medical missionary
Durtlang Dispensary	1910	A limited number of beds were made available for individuals requiring admission.
Durtlang Welsh Mission Hospital	1928	Facilitated by the assistance of a pair of trained Mizo Personnel
Rural Health Centre in Sihfa	1956	Four-days hike from Durtlang to Aizawl
Rural Health Centre in Sawleng	1956	Four-days hike from Durtlang to Aizawl
Rural Health Centre in Pukzing	1956	7-8 days hike from Durtlang to Aizawl
Rural Health Centre in Chhawrtui	1958	6-day hike from Durtlang to Aizawl

Source: Zarzoliana (2005) Availability and *Utilization of Healthcare Facility in Mizoram: A Geographical Analysis.* (Unpublished Thesis) & Primary Survey, 2012

The Durtlang Synod Hospital in Aizawl was opened in the year 1928,under the aegis of Dr John Williams and was formerly named the ‘Welsh Mission Hospital’ by. Originally known as the 'Welsh Mission Hospital,' this healthcare institution was founded by a group of dedicated Missionary Presbyterian Christians hailing from Wales. Their collective efforts brought about the creation of this much-needed medical facility. Beyond its central location in Aizawl, the missionaries extended their compassionateservices to the remote and underserved regions of Mizoram. The Welsh Presbyterian Christian missionaries who also started Rural Health Centres in far-flung rural areas of Mizoram-Sihfa, Sawleng, Pukzing and Chhawrtui. These clinics became beacons of hope for the residents inhabiting the remote areas of Mizoram., as they provided essential medical services and offered much-needed relief to the ailing and vulnerable. (Please refer to Table 5.2). The Health Units were the first

facilities in the state to offer fundamental medical services to its residents. Skilled nurses were provided for them, and zealous Christian missionaries paid them frequent visits. The outbreak of insurgency in 1966 made it impossible to sustain the rural health centres, which eventually had to be closed down.

Dr. John Williams' visionary leadership and the dedication of the Welsh Missionaries would have a lasting impact on the healthcare landscape of Mizoram. The Synod Hospital and the satellite clinics not only provided medical treatment but also became centres of healing, hope, and support for the local communities. Their commitment to reaching out to remote areas showcases a true spirit of service, reflecting their deep-rooted compassion and genuine concern for the well-being of the Mizo people. Through the years, the Synod Hospital and its associated clinics have continued to evolve and adapt to the changing healthcare needs of the region, becoming a cornerstone of medical excellence in Mizoram. The legacy of Dr. John Williams and the Welsh Missionaries lives on through the countless lives they touched and the enduring impact they made on the overall health and welfare of the Mizo population. Their contributions remain an inspiring example of how compassion, dedication, and medical expertise can transform lives and uplift communities, leaving a lasting impression for generations to come.

The Baptist Mission played a significant role in introducing modern healthcare to the Mizo community in the southern region of Mizoram. Their efforts began in 1919 when they established the first dispensary, a modest medical facility that marked the beginning of accessible healthcare services for the local population. Four years later, in 1923, the dispensary was inaugurated and gradually expanded its services, eventually evolving into a fully-fledged hospital located in Serkawn, Lunglei. From 1919 until 1977, a period spanning nearly six decades, a group of ten dedicated healthcare professionals of European descent, including nine nurses and one doctor, devoted themselves to serving the healthcare requirements of the Mizo population. The commitment they showed to the region's well-being was exemplary, and they played a fundamental role in bringing essential medical services and expertise to an area that had previously faced significant challenges in accessing modern healthcare.

In 1952, recognizing the importance of education and capacity building, the Baptist Mission took another noteworthy step by establishing a nursing school in

Serkawn. This nursing school provided a comprehensive educational programme centered around the disciplines of Auxiliary Nursing and Midwifery. The initiative aimed to train and equip local individuals with the necessary skills and knowledge to serve as healthcare providers within their own communities. This move not only helped address the shortage of medical personnel but also empowered the local population to take an active role in caring for their fellow community members.

The establishment and development of the Serkawn Hospital, along with the nursing school, marked a transformative period for healthcare in the southern region of Mizoram. The same establishments have persisted and continue to fulfill a significant function in imparting education and medical assistance to numerous individuals[275]. The Baptist Mission's dedication to providing quality medical services and nurturing local talent has created a lasting influence on the overall welfare and health of the Mizo population. Their legacy of compassion, commitment, and capacity building continues to shape the region's healthcare landscape and stands as a testament to the profound difference that can be made through a steadfast focus on improving healthcare access and education.

The Welsh Mission in Northern Mizoram and the Baptist Mission in Southern Mizoram have both established highly regarded nursing schools, demonstrating their dedication to improving medical education in the area, wherein many students received training in nursing, reproductive health, and midwifery over the years, thereby enhancing health awareness and services in the region. The missionaries' contributions to public health, hygiene, and sanitation education were without comparison. They used to travel to the most out-of-the-way rural communities to educate locals on the need for cleanliness and sanitation. As a result, the missionaries developed different organizations aimed at promoting health and sanitation among the Mizo. Some examples of such organizations include: [276]

[275] K.C.Lalmalsawma(2013) '*The Hill Geographers'*, Geographical Society of the North eastern Hill Region(India). Vol.XXIX:2 (2013)/ISSN 0970-5023.pp 43-54
https://www.researchgate.net/publication/327745383_Health_Care_Facility_in_Mizoram_Spacio-Temporal_Analysis

[276] Zarzoliana (2005),op.cit.pp.39-40.

1. The Bible Women organization: The Bible Women organization was established in the Mizo community with a twofold mission. Firstly, they served as messengers of Christianity, spreading the teachings of the Gospel and promoting a deeper understanding of Christian beliefs among women. Secondly, they played a vital role in providing crucial guidance on health, hygiene, maternity care, and social matters, in a context where formal platforms for such education were scarce. They played a significant role in promoting healthier living habits, preventing the spread of diseases, and offering essential support to expectant mothers. Also, the Bible Women advocated for gender equity, the rights of the womenfolk, as well as the significance of providing education to girls., contributing to the empowerment of women and inspiring positive societal change in Mizoram.

2. The Child Welfare Organization: The establishment of the Child Welfare Organization in Aizawl owes its credit to the dedicated endeavours of the Presbyterian Mission. The organization's primary goal was to educate and guide mothers on best practices for child care. In addition to nurturing mothers in child-rearing techniques, the organization also emphasized the significance of maintaining proper housekeeping and household hygiene to promote overall family health. Through their efforts, the Child Welfare Organization became a valuable resource for mothers in the community, supporting them in providing the best possible care for their children and fostering healthier living environments.

In the southern region, the Baptist Mission took a compassionate step by establishing an orphanage that catered to motherless infants. Beyond providing essential care for these vulnerable children, the orphanage also played a crucial role in educating Mizo mothers on effective childcare methods and maintaining the well-being of their children. By imparting knowledge and guidance to these mothers, the Baptist Mission sought to empower them with the skills and understanding needed to raise healthy and happy children. The orphanage became a symbol of hope and support for both motherless infants and Mizo mothers, leaving a lasting impact on the community's welfare and reinforcing the mission's commitment to caring for the most vulnerable members of society.

3. The Mission Schools: The Mission Schools played a vital role as educational institutions that not only focused on imparting literacy but also served as centres for

promoting hygiene and sanitation knowledge. In the bygone era, educators within these schools took the responsibility of guiding students on the significance of cleanliness and its far-reaching effects on health and well-being. Beyond academic subjects, the students received valuable lessons on personal hygiene practices, thereby instilling habits that would benefit them and their communities in the long run. The Mission Schools' holistic approach to education extended beyond the classroom, nurturing a generation of individuals who understood the importance of maintaining clean and hygienic living environments.

The missionaries' influence extended to the realm of housing patterns within the Mizo community. Recognizing the direct link between housing conditions and public health, the missionaries advocated for changes in native housing patterns to promote better hygiene standards. Their efforts aimed at inspiring people to adopt construction practices that would create cleaner and more hygienic living spaces. By encouraging these alterations in housing design, the missionaries sought to enhance the holistic health and general welfare of the Mizo populace, ensuring that hygienic conditions prevailed across the community. Their approach encompassed not only formal education but also practical initiatives that had a lasting impact on public health and sanitation practices throughout the region.

Christian missionaries have played a significant role in delivering healthcare services that are deemed essential, grounded in practicality, scientific validity, and social acceptability. These services aim to be accessible to all individuals and families within the community, with an emphasis on their active involvement. Moreover, the cost of these healthcare services is designed to be affordable for both the nation as well as the community[277]. These missionaries made invaluable contributions to healthcare by ensuring that medical services were not only grounded in sound scientific principles but also customized to address the distinct requirements and cultural perspectives of the indigenous community. They worked tirelessly to make healthcare services available and accessible to all, promoting inclusivity and community engagement.

[277] Definition of Primary Health Care as given by the Alma Ata Declaration, UNO

Through their dedicated efforts, the Christian missionaries played a crucial role in improving public health by providing healthcare that was both culturally sensitive and relevant. Their approach involved actively involving individuals and families in healthcare decision-making, fostering a sense of ownership and responsibility for their well-being. Moreover, the missionaries sought to make healthcare affordable and attainable for the community, recognizing the importance of removing financial barriers to accessing essential medical services.

Overall, the contributions of Christian missionaries in healthcare were instrumental in shaping a more equitable and comprehensive healthcare system, leaving a long-term influence on the physical and mental welfare of the communities they served. Their commitment to providing healthcare that was scientifically strong, culturally appropriate, and economically accessible remains a testament to the transformative power of community-centered healthcare initiatives. The fundamental underpinning of primary healthcare, as it is currently understood, was established and promoted by Christian missionaries in Mizoram. During that time, Aizawl served as the central hub and the initial location for the delivery of healthcare in Mizoram

Public Healthcare Delivery

British India annexed Mizoram, which was then known as the Lushai Hills, in 1892. The Superintendent, who had complete administrative authority, was given entire administrative control over Mizoram. The District Council's first general election was conducted in 1952. Mizoram underwent a dark phase of insurgency that began in 1966 and continued until 1987. Union Territory status was officially bestowed to it in 1972 and subsequently statehood in 1986. Because of this, growth in the healthcare sector during the mentioned timeframe spanning from District Council status to achieving Statehood was unsurprisingly sluggish and uncertain

Table 5.3

Mizoram: Growth of Health Centres Run by the Government

Years of functioning and Period	Establishment Year	Hospital		Health Centre (CHC,PHC,SHC)	Dispensary		Sub Health Centre
When the state was a district of Assam State(1894 to 1972)	1896	-		-	1	-	-
	1920	2	*1	-	7	*9	-
	1947	2		-	7	-	-
	1966	3		3	21	-	-
	1972	3		4	55	-	-
UT Govt. (1972-1986)	1986	7		51	-	-	314
Statehood Since 1986	1998	7		75	-	-	336
	2001	7		67&25 Clinic	-	-	351

Source: Zarzoliana (2005) Availability and *Utilization of Healthcare Facility in Mizoram: A Geographical Analysis.* (Unpublished Thesis) & Primary Survey, 2012

Mizoram was previously a part of the state of Assam before becoming a District Council in the year 1952. Aizawl Civil Hospital, the first institution of its kind in the state, had a humble start in 1894 and initially began to operate as a health facility for coolies in a small tent and was given the name 'Kuli Dispensary'. It was established as a fully equipped eight-bed dispensary. A few years along, in 1896, it was eventually enlarged to a capacity of 12 beds[278]. Seven separate clinics were founded between 1896 and 1920 in the state's rural areas. Each dispensary had between five and six emergency beds. In 1947, two hospitals, namely the Aizawl Hospital (which had 36

[278]K.L. Remsanga and John Zohmingliana (2018),'*Progress of Civil Hospital, Aizawl*' in 19th Annual Magazine of MGDA,p.47

indoor beds) and the Lunglei Hospital, both had certified medical professionals working there, including both doctors and nurses. Before Mizoram became a Union Territory on February 20, 1972, the state of Assam administered its health care services in the region, and the SDMOHO in Aizawl assisted the Civil Surgeon by serving as the administrative head of the Lunglei Sub-Division. This arrangement lasted until Mizoram became a Union Territory[279].

When Mizoram was still a part of Assam, on the eve of its elevation to the status of a Union Territory, there were 55 Dispensaries, 3 Primary Health Care Centres, one medical clinic, and three hospitals in the area. Under the UT Government, there was an immense growth in health care services.When Mizoram was admitted as a state into the Indian Union, there were already sevenhospitals spread over the entirety of the state. Two of these hospitals were specialist facilities; one was dedicated primarily to the treatment of TB, while the other was constructed specifically for leprosy patients. By that point, there were 51 major facilities and as many as 314 sub centres established to provide primary healthcare tothe people. (See Table 5.3)

On the 21st of January 1972, when Mizoram became a Union Territory, the Health and Family Welfare Department was established as an independent department. The department head was appointed to the rank of Director. It is challenging to reconstruct the founding and development of the Health Department since there are no appropriate documents that have been kept in a systematic manner. In especially with regard to the formative years, the narratives that can be obtained are insufficient and exhibit some degree of inconsistency. The Department of Health is in charge of a variety of key responsibilities, including the following:

1. It is the responsibility of the Health Department to oversee and supervise various public healthcare institutions, including hospitals, pharmacies, and primary healthcare centres (PHCs) to ensure the efficient and effective delivery of medical services to the community.

[279] Thangdailova(2003),op.cit,p 34.

2. One of the roles of the Health Department is to address food adulteration, which poses a threat to public health. They take measures to safeguard the integrity of our sustenance by monitoring and mitigating instances of food contamination.

3. The Health Department enforces Drug Control Acts to regulate the production, distribution, and use of pharmaceutical drugs, ensuring their safety, efficacy, and availability for public welfare.

4. Nationwide initiatives for family planning and healthcare programmes fall under the purview of the Health Department. These programmes are designed to promote the well-being of individuals and their households by offering accessibility to essential medical resources and family planning options.

5. The fundamental role of the Health Department is the management of health services, which includes the supervision of the organization and coordination of healthcare facilities and resources for the purpose of meeting the requirements of the population in an efficient manner.

6. The Health Department is involved in implementing the Indian Poison and Lunacy Act, which deals with issues related to poisoning cases and the care of mentally ill individuals.

7. The department initiates programmes with a particular emphasis placed on boosting the health of mothers and babies, with the goal of improving the overall health outcomes for women and children through various healthcare interventions and support.

8. Specific programmes are implemented by the Health Department to combat tuberculosis (TB), and leprosy, and promote child health, addressing these health issues through prevention, diagnosis, and treatment.

9. The Health Department deals with matters concerning the Indian Medical Council, regulating medical education and practice to ensure high standards of medical care and ethics.

10. Health education programmes are undertaken by the Health Department to promote awareness and knowledge about various health issues, encouraging preventive measures and healthy lifestyle choices within the community.

The Health Department also has authority over a diverse array of new health concerns and challenges. The Directorate of Health Services (DHS) and the

Directorate of Hospital and Medical Education (DH&ME) are two of the directorates that fall under the purview of the Department of Health and Family Welfare. Both of these directorates are provided with separate financial resources to support their functions. The creation of medical and healthcare facilities, as well as their management, is within the purview of the Directorate of Health Services. They also oversee the essential auxiliary facilities in the state. Besides, it assumes the responsibility of imparting health education, ensuring nutritional security, and regulating pharmaceuticals. It also spearheads various endeavours aimed at fostering public health and averting the onset of diseases. The Directorate assumes responsibility for overseeing the implementation of nationwide sponsored initiatives intended to meet the state's well-being of children and women.

The Community Health Centres, Primary Health Centres, Sub Health Centres, Clinics, and the Rural Hospital are all under the direction of the Department of Health Services, which supervises all healthcare institutions in the country. The Directorate of Hospital & Medical Education is in charge of the day-to-day operations of Kulikawn Hospital, Civil Hospital, and district hospitals.

The Aizawl District has been appropriately bifurcated into two separate administrative divisions, namely the East and West sectors, each of which is overseen by a Chief Medical Officer (CMO), to provide healthcare services. Health care delivery services are currently offered in Mizoram by the state hospital in Aizawl, an upgraded district hospital, 10 district hospitals operating in various districts of the state, Kulikawn Sub-District Hospital, Zemabawk State Cancer Institute, Falkawn State Referral Hospital, along with a comprehensive network of 27 privately-owned healthcare facilities dispersed across the state, of which eight are specifically situated in the city of Aizawl (Refer to Table No. 5.4). The Health Department's workforce, consisting of both technical and non-technical personnel, collaborates to achieve the department's goals and fulfil its duties. Healthcare was gradually brought as near to the population as possible, even in the most remote, rural locations. In Mizoram, there were 3 PHCs in 1966, and 4 in 1972.In 1986, there were 51 PHC/CHC and 314 sub-centres (Table 5.3). In 2013, there were 367 Sub centres and 64 PHC/CHCs. Currently,

there are 379 sub-centres, 170 clinics,9 community health centres, 61 primary health centres, and 61 primary health centres in the state. (Refer to Table No. 5.5)[280].

Table 5.4

Public Hospitals

Sl/No	Hospital	Bed Capacity
1	Aizawl District Hospital	275
2	Kulikawn Hospital	50
3	Lunglei District Hospital	150
4	Champhai District Hospital	90
5	Serchhip District Hospital	60
6	Saiha District Hospital	100
7	Kolasib District Hospital	30
8	Mamit District Hospital	30
9	Lawngtlai District Hospital	35
10	Saitual District Hospital	30
11	Hnahthial District Hospital	30
12	Khawzawl District Hospital	21
13	Falkawn Referral Hospital	236
14	Mizoram State Cancer Institute	50
15	Integrated Ayush Hospital at Thenzawl	50
TOTAL		1267

Source: Economic Survey of Mizoram 2021-22

Mizoram Primary Healthcare Services

Mizoram is one of the states of the Indian Union, which is a signatory of the Alma Ata Declaration of 1978. Community and primary health centres in Mizoram were first set up in 1966., with the initial provision of three PHC/CHC facilities. By 1972, when Mizoram was declared a Union Territory, an additional centre was established. Since then, the number of PHC/CHC facilities has consistently grown to

[280] See Appendix No,VII,Updated List of Health Facilities in Mizoram.

cater in light of the increasing need for basic healthcare. Following the attainment of statehood, there was a focus on expanding and enhancing the healthcare infrastructure. It is imperative to recognize the significance of the proliferation of medical facilities throughout the state does not necessarily guarantee the presence of adequate facilities for enhancing the standard of delivery services in primary healthcare. The government's attempts to improve both the amount and the calibre of healthcare services offered to the populace may be seen positively in the expansion of healthcare facilities. The healthcare industry includes a broad variety of services for people's personal health, such as health promotion and knowledge sharing, reducing the risk of illness, prompt identification and treatment of illnesses, and recuperation. "Health services" encompasses the various aspects of organization, delivery, staffing, regulation, and quality control[281].

The primary medical facilities in Mizoram, akin to their counterparts in various regions across the nation, cover a broad spectrum of health measures with a focus on comprehensive healthcare services pertaining to the reproductive and child domains. These services encompass various health interventions for women and children, which are frequently delivered through maternal and child healthcare programmes. These programmes, which include childcare interventions like routine immunization, cleanliness, and health, are deeply integrated into primary healthcare. Additionally, Primary Health Care services address the increasing demand for addressing fundamental health concerns related to transmissible ailments such as HIV Infection, Malaria, tuberculosis, and diarrhoea. Also, Ayushman Bharat-Health and Wellness Centres programme under NHM has placed greater emphasis on diagnosis as well as treatment of Non-Transmissible Diseases. A more detailed discussion of this topic will be presented in the latter part of the current chapter.

The functioning of Sub Health Centres/Health Wellness Centres in Mizoram

Healthcare systems and units were gradually set up in Mizoram to bring healthcare services closer to the people, even in the far-flung and sparsely inhabited regions of the state. In the year 1966, there were just three primary healthcare centres in Mizoram, Six years later, when Mizoram became a Union Territory, the number of

[281] Thangdailova(2003),ibid,p.30.

PHCs had expanded to four. Mizoram was given statehood in 1986, and at that time there were already 314 sub centres and 51 primary and community health centres.(Please refer to Table 5.3). In 2013, there were a total of 367 Sub centres and 64 Primary and Community Health Centres. Presently, there are 170 Clinics, 379 Sub-centres, and 9 Community Health Centres located all across the state. Additionally, there are 61 Primary Health Centres. (Table No. 5.5).

Table No. 5.5

Health Institution including hospitals /CHC/PHC/Main Centre/Sub-centre & Clinics

Sl No	District	Private Hospital	Tertiary Care Hospital	District Hospital	Sub-District Hospital	CHC	PHC	UPHC under NUHM	Sub Health Centres	SHC-Clinics
1	Aizawl West	9	1	1	1	2	3	3	41	31
2	Aizawl East	7	0	1	0	1	3	3	34	26
3	Champhai	2	0	1	0	0	5	1	32	15
4	Hnahthial	0	0	1	0	0	5	0	16	5
5	Khawzawl	0	0	1	0	1	4	0	19	10
6	Kolasib	1	0	1	0	1	5	0	26	9
7	Lawngtlai	2	0	1	0	1	6	0	35	18
8	lunglei	4	0	1	1	0	6	2	57	16
9	Mamit	0	0	1	0	1	10	0	40	10
10	Saitual	0	0	1	0	1	5	0	27	9
11	Serchhip	1	0	1	0	1	5	0	28	7
12	Saiha	1	0	1	0	0	4	0	24	14
	Total	**27**	**1**	**12**	**2**	**9**	**61**	**9**	**379**	**170**

Source: "Updated List of Health Facilities in Mizoram" notified by The Mizoram Gazette Extraordinary, RNI No.27009/1973, VOL - L Aizawl, Friday 22.10.2021 Asvina 30, S.E. 1943, Issue No. 475

In Aizawl District with a population of 400,309, as per 2011 Census, there are 75 Sub Health Centres and 57 Clinics. Lunglei District, having a population of 1.61 lakhs (as per 2011 Census) has 57 Sub Health Centres and 16 Sub Centre Clinics.

Sub Health Centres stand as foundational healthcare facilities catering to the diverse health needs of the people. Their comprehensive range of healthcare services extends beyond curative treatment, prioritizing the promotion and prevention of health concerns. In this study, the central focus is towards the fundamental role played by Sub-Centres, as they constitute the primary and crucial interfaceconnecting individuals with essential primary healthcare services. This study sheds light

light on the evolving landscape of healthcare offered by Sub-Centres, encompassing a spectrum of services, both for non-communicable diseases (NCDs) and communicable diseases. While this expansion has embraced a wider range of health concerns, the cornerstone of Sub Centres' operations continues to be deeply embedded in the realm of Reproductive and Child Health (RCH) services. These services encapsulate the core functions of Sub Centres, emphasizing the imperative of safeguarding the health and well-being of mothers and children.

The new services being added are strategically aligned with the ethos of health promotion and prevention. This approach is instrumental in cultivating awareness and understanding among communities, coupled with the provision of tailored guidance and counselling as needed. By harnessing these interventions, Sub Centres effectively foster a culture of proactive health consciousness, equipping individuals to make informed decisions and adopt healthy behaviours.

In essence, this study highlights the multi-dimensional significance of Sub Health Centres, highlighting their role as essential conduits for primary healthcare services. While embracing a broader healthcare spectrum, these centres consistently champion the cause of maternal and children's health. Their outreach extends beyond medical treatment, emphasizing the cultivation of health awareness and the provision of guidance, thereby fortifying the foundation of community well-being. In large part, the responsibilities of the Health Sub-Centres also include rudimentary curative aspects of diseases, both transmissible and non-transmissible. This is particularly true since Sub Health Centres have undergone a recent transformation, Ayushman Bharat Health and Wellness Centres (HWCs) are now responsible for providing healthcare services under the framework of the National Health Mission.

It is important to highlight at this juncture that the compilation of services and responsibilities undertaken and implemented by the Sub Health centre is notably extensive, all-encompassing, and to a considerable degree meticulous. The Sub-Centres perform and implement a relatively extensive, comprehensive, and to a great degree full range of duties and responsibilities. There are several challenges that develop as a result of Sub-Centres, being so near to the population. This is due to the fact that being the first point of contact and at such proximity, these Sub Centres have a far higher impact on people's lives, particularly those of the poor.

On a national scale, there are Sub-Centres, which are approved and outfitted as delivery locations/points for intranatal care as well as all other recommended services. These Sub-Centres have fairly good infrastructure and located at good catchment areass, and have adequate caseload. These sub-centres fall under the Type B category. Sub-centres (Type A) are Sub-centres that offer all required services but lack the delivery-related infrastructure. They do not offer intranatal care. This classification depends on the supply of services in accordance with population needs. The current study has determined that in the case of Mizoram, this type of classification does not exist and that only a small number of Sub-Centres are adequately equipped to handle deliveries. The simplest justification for this is that patients prefer delivery in higher- level health institutions since these facilities—which are more accessible and better equipped—are available in fully working public and private hospitals. Furthermore, it is noteworthy to mention the existence of fully operational primary healthcare centres that possess the necessary capabilities to effectively handle childbirth procedures, catering to the needs of both urban and rural regions alike. However, it would be preferable if sub-centres and clinics in Mizoram had at least the bare minimum of supplies to handle births in the event of an emergency[282].

In addition to providing promotional, protective, and limited therapeutic elementary healthcare amenities, with a particular emphasis on the domains of Maternal and Childcare, and NCD-related services, the Sub Centres take part in the execution of nationwide Health and Welfare Initiatives involving transmissible diseases as part of the National Health System and includes programmes like NACP, NVBDCP, and Leprosy Eradication, addressing various diseases and promoting public health.

Despite the stress on the expanded range of services, the Sub Centres' primary functions continue to revolve around providing services pertaining to the well- being of children and mothers. When it comes to the health of women, these services are wide ranging, from birth control to newborn care to breastfeeding assistance. Male Health Workers (MPWs), Auxiliary Nurse Midwives (ANMs), and other officials at

[282] Based on an interview with Clady P C Zothankhumi,Health and Wellness Officer,Hrangchalkawn Health and Wellness Officer on 20.07.22

the Sub-centre offer medical advice and fundamental services. Every working day, during business hours, the Sub-centre is open to provide OPD services as well as outreach services to the general public.

The services offered by the Sub-centres are listed below. When resources and time are available, these services are offered as far as practicable at the majority of Sub Health Centres in Mizoram. The many services may be broken down into two major classes: Desirable, which all Sub Centre States/UTs may strive to provide and aspire to achieve to the best of their abilities, considering the available resources, talents, and time; and Essential, which represents the minimum level of services that may be guaranteed[283]:

I. Required (Minimum Guaranteed Services)

1. Child and Maternal Care Services

Women's Health

i.Healthcare during Pregnancy

(i) The prompt and mandatory registration for each pregnant woman, preferably ahead of the initial week 1 to the end of week 12 of the pregnancy (the first trimester refers to the first 12 weeks of Pregnancy). Even if an expectant mother comes for registration when she is quite far along in the pregnancy, she is registered and provided necessary care.

A minimum of three check-ups are provided:

1. First Check-Up (Before 26 Weeks): This is conducted during the initial stages of pregnancy, typically before the 26th week.

Purpose: Establish a baseline understanding of the mother's health and the early stages of foetal development.

Evaluation: Comprehensive assessment of vital parameters, medical history, and initial foetal growth.

Benefits: Early detection of potential issues, personalized guidance, and informed planning for the remainder of the pregnancy.

[283] Indian Public Health Standards (IPHS), Guidelines for Primary Health Centres, Revised 2012, Directorate of Health Services, Ministry of Health and Family Welfare, Government of India. pp. 6-14.(See Appendix No.IX)

2. Second Check-Up (Around 32 Weeks): This is usually around the 32nd week of pregnancy.

Purpose: Monitor maternal health progression and foetal development as pregnancy advances.

Evaluation: Thorough review of maternal health indicators, foetal growth patterns, and emerging concerns.

Benefits: Mid-term assessment aids in identifying risks, allows timely interventions, and ensures optimal health for both mother and baby.

3. Third Check-Up (Around 36 Weeks): This is conducted approximately around the 36th week of pregnancy.

Purpose: Assess maternal readiness for labour and delivery, as well as the final stages of foetal growth.

Evaluation: Advanced diagnostics to gauge labour readiness, foetal position, and birth-related considerations.

Benefits: Provides insights for birth planning, prepares expectant mothers for delivery, and enhances overall birth experience.

These three antenatal care check-ups form a structured timeline of comprehensive assessments. Conducted before the 26th week, around the 32nd week, and approximately the 36th week of pregnancy, they are critical to making sure mother and baby are healthy and happy in the womb.

(ii) Providing antenatal amenities that are allied in nature, such as general examination procedures including height, weight, blood pressure, anaemia, abdominal examination during the fifth month of pregnancy, breast examination, administration of Folic Acid Supplementation during the first trimester, TT (Tetanus Toxoid) inoculation, and anaemia treatment, among others. Additionally, the documentation of any tobacco use by the expectant mother.

(iii) Standard tests conducted in laboratories such as pregnancy confirmation through Urine Tests, estimation of haemoglobin levels, and analysis of urine for albumin and sugar. Additionally, there are connections with Primary Health Care centres for any further necessary examinations.

iv) The implementation of a tracking system that is based on their names in order to guarantee that they receive treatments that are dependable and effective.

v) The process of determining if the woman or her growing child is at higher risk of encountering difficulties during pregnancy for follow-up and referral if deemed necessary.

(vi) Monitoring and documenting warning indicators all throughout the course of the pregnancy.

vii) Malaria prophylaxis is also given to pregnant women who live in high-risk regions, as recommended by the NVBDCP.

viii) The expeditious and appropriate referral of cases that surpass the capabilities of Sub Centres

ix)Continuous counselling is recommended for antenatal mothers on various aspects such as diet, rest, tobacco cessation, and the dangers of exposure to second-hand smoke. Advice is also given on having a hospital delivery, preparing for complications, and knowing what to do if something goes wrong. In cases where home delivery is preferred, hygienic and safe delivery practices may be emphasized. Additionally included are postpartum care and cleanliness, nutrition, infant care, birth registration, breastfeeding initiation, sole breastfeeding for half a year, demand feeding, and additional nourishment beginning at six months old, including weaning as well as beginning semi-solid and solid meals. Finally, advice on feeding babies and young children as well as contraception is provided.

x)to furnish details regarding the provisions offered by existing schemes and programmes such as the Janani Suraksha Yojana.

xi) the detection of probable sexually transmitted diseases and afflictions pertaining to the reproductive system, commonly referred to as reproductive tract infections (RTIs), in addition to the provision of appropriate recommendations for further medical consultation, counselling, and minimal care.

xii)Counselling and referral services are provided for individuals living with HIV or AIDS.

xiii)The implementation of a name-based tracking system for missed and excluded antenatal care (ANC) cases.

ii: Care during Delivery

(i) The advocacy for childbirths to take place in a healthcare facility such as a hospital or a clinic.

(ii) The provision of competent attendance during home deliveries upon request.

(iii) The timely and suitable referral of high-risk cases that exceed the Sub Centre's capabilities.

iii. After-Delivery Care:

(i) Commencing breastfeeding at an early stage.

(ii) Deliveries at home or in a sub-centre are mostly followed up with four home visits following delivery for the mother and infant within 48 hours after delivery and on days three and seven, and again on day forty-two.

(iii) Making sure that both the mother and the newborn have hospital visits after giving birth.

(iv) Further calls are made if a baby is delivered weighing less than 2500 grams due to low birth weight.

(v) By means of domiciliary visits, comprehensive guidance is dispensed regarding the optimal management of maternal well-being, as well as the provision of adequate care and sustenance for the newborn, with an unwavering commitment to the principles detailed in the guidelines for Integrated Management of Neonatal and Childhood Illness (IMNCI). Additionally, newborns are thoroughly examined for indications of illness and congenital anomalies, and if necessary, referred to the appropriate healthcare professional.

(vi)The provision of guidance and support on matters pertaining to dietary as well as sleeping, cleaning, preventing pregnancy, caring for newborns, vaccinating them, and nourishing them properly. for infants and young children, including diseases that are transmitted through sexual activity, infections of the reproductive tracts, etc.,

(vii)The implementation of an identifying system based on names for identifying missed and excluded postnatal care (PNC) cases.

2. Paediatric Care

(i) Giving advice and encouragement on how to practice only breastfeeding for a period of six months, then, at the six-month mark, introducing suitable and adequate supplemental eating while supporting the continuation of nursing as per the provisions of the National Guidelines.

(ii) Evaluating progression and maturation of newborns and children younger than five, and ensuring prompt referral when necessary.

(iii)The provision of routine immunization services which involves the administration of vaccines to infants and children in order to prevent diseases that can be prevented through vaccination as per the Central Government Guidelines. Additionally, children are provided with Vitamin A prophylaxis in accordance with the Nationwide procedures.

(iv) preventive measures and treatment of common paediatric ailments including nutritional deficiency, infectious diseases, acute respiratory infections, diarrhoea, fever, and anaemia.

(v)The implementation of a monitoring system based on names for newborns and children to guarantee full vaccination compliance.

(vi) The process of identifying and subsequently monitoring Adverse Events Following Immunization (AEFI) which is of paramount importance in the field of immunization. Proper referral and reporting mechanisms is also in place to ensure that any AEFI cases are promptly addressed and managed.

3. Pregnancy and Birth Control

Methods of family planning education, inspiration, and guidance. An ANM can give a variety of contraceptives, including insertions of intra-uterine contraceptive devices (IUCDs) (in places where the ANM has received training in IUCD insertion). After an abortion or medical termination of pregnancy (MTP), patients are offered subsequent medical attention and appropriate referral, if necessary.

4. Outreach Programmes during School Visits

The current ANM/MPW screens and treats minor illnesses, immunizes, deworms, prevents and manages vitamin A and nutritional deficiency anaemia, and refers to higher levels of healthcare as needed during regular school visits. Sub-centre employees collaborate with the school officials to offer essential support.

5. Preventing the Spread of Infectious Diseases

(i) Helping to diagnose, treat, and report locally endemic illnesses including malaria, Dengue fever, and others.

(ii)Assistance in controlling epidemics in accordance with the programme's recommendations. IDSP (Integrated Disease Surveillance Project) Disease Watch

(iii) In line with IDSP standards, any suspected instances of diarrhoea, dysentery, fever accompanied by breakouts, jaundice, or disorientation arereported as soon as possible to the appropriate primary healthcare professional.

(iv)Syndromic surveillance to immediately notify any clusters or outbreaks. Sensitivity to, and prompt reporting of, any health concerns that may arise beyond thenorm.

(v)Reports are submitted weekly in 'S' Form to PHC in accordance with IDSP regulations.

6. Services in the Field/Outreach Programmes

A Village Health and Nutrition Day (VHND) is planned and carried out at the very least once every single month and falls under the purview of the ANM, wherein the male personnel also contribute their fair share, particularly in matters pertaining to the logistical and organizational aspects of vaccine distribution. Beneficiary mobilization and local organization support are properly coordinated with Anganwadi staff, ASHAs, and community volunteers. Every Village Health and Nutrition Day entails a minimum of four hours of direct interaction among healthcare personnel, ASHAs, and the recipients.

The following consists of a list of services offered by VHND, broken down into mandatory and optional categories:

Essential

(i) Pregnant women are registered as soon as possible and offered antenatal care in accordance with the SBA's standard treatment protocol.

(ii) All children under the age of five are immunized and given vitamin A as recommended by the vaccination timetable

(iii) Additional nutritional assistance, medical evaluations, and referrals, for expectant mothers and kids under the age of six and nursing mothers are all coordinated with the ICDS programme.

(iv) Distribution of contraceptives and provision of advice on family planning.

(v)Those with mild illnesses who are referred by ASHAs/AWWs or who come voluntarily can get symptomatic treatment and management.

(vi) Health Communication for mothers, teens, and anybody else in the community who shows up for the VHND session.

(vii) Convene with ASHAs to discuss their training and support requirements.

(viii)The Birth and Death Registration System

Desirable:

(i) STI/RTI and suspected HIV infection cases get symptom-based treatment and counselling with referrals as appropriate.

(ii) Sanitizing water supplies including promoting toilet usage and proper trash disposal.

7. House Calls

Essential Functions

Home

(i) To ensure skilled care during an at-home birth, whether it is a choice or a necessity for the mother.

(ii) Conducting postnatal and infant visits following the established procedure.

(iii) To follow up on illness occurrences that the health worker has been informed about or that she/he encounters when making house calls, particularly if the disease is one that must be reported. Notifying M.O., PHC of unusual cases of diarrhoea, dysentery, fever, rash, flaccid paralysis, wheezing cough, tetanus, jaundice, unconsciousness, and AEFIs promptly and taking essential precautions to prevent their progression.

Desirable Functions

(i) Home visits are conducted for couples who are eligible for the services of contraception but are not currently utilizing them. This includes couples who have children under the age of three, are married with children under the age of 19, or have a complete family.

(ii) Guidelines-compliant post-operative care for patients who have had sterilization or MTP in accordance with guidelines, particularly for people who are unable to visit the hospital.

(iii) When it is deemed essential to do so, providers of Directly Observed Treatment, Short-Course (DOTS)located in the community are visited.

(iv) Visits to support ASHA in situations when additional guidance is required to encourage households to use suitable medical assistance, such as vaccination defaulters, prenatal care defaulters, TB defaulters, etc.

(v)When there is a suspicion of malaria in a patient with fever, take blood slides or do an RDK test.

8. House to House Surveys

These polls are conducted once a year, ideally around April. the ASHAs, Anganwadi employees, volunteers from the community, members of the local government, as well as members, of the Health and Nutrition Committee encourage and participate in surveys. MHW takes the initiative and is responsible for organizing these surveys, creating the lists that follow, and making referrals.

The surveys may consist of :

Essential Functions

(i) Every family member's gender and year of birth.

(ii) Evaluate and compile a list of eligible couples' unmet contraceptive requirements.

(iii) Assess the congruity between an individual's cutaneous lesions or other manifestations and the clinical profile associated with leprosy, subsequently directing them to appropriate medical attention. This is of utmost importance in regions with a high incidence rate.

(iv) the identification, listing, and referral of the blind or those with low vision

(iv) the identification, listing, and referral of the deaf or those with some degree of hearing loss

(v) The management of medication in bulk on a yearly basis in areas with a high incidence of illness.

9. Coordination and supervision

Various organizations such as AWWs (Anganwadi Workers), ASHAs, Health and Nutrition Committee, and other local entities collaborate synergistically to effectively deliver essential services.

10. Reporting and Record-Keeping

The diligent upkeep of documentation pertaining to the services rendered at the Sub Health Centre, along with the morbidity/mortality statistics for evaluating the healthcare status within the area of its functioning. Furthermore, the sub-centre maintains comprehensive records of all births and deaths within its jurisdiction, simultaneously engaging in vigilant surveillance and providing comprehensive documentation pertaining to the sex ratio observed during childbirth. Annexure 8 of

IPHS for Sub-centres provides a comprehensive enumeration of the minimum quantity of registers that must be upheld at the Sub-centre[284].

11. Curative Care

Treatment for minor diseases such as treatment for diarrhoea, a high temperature/fever, acute respiratory infection, worm infestation, first aid and wound care, and tourniquet application for snake bites, is provided and if necessary, appropriate, and fast referral.

12. Care of Adolescent Health

(i) The provision of education, counselling, and referral services.

(ii) The management and prevention of anaemia.

(iii) Provision of counselling services regarding the adverse consequences of tobacco consumption and cessation strategies.

II. Communicable Disease Programme: Subcentres' Contribution and Role Within the Realm of Nationwide Health Initiatives

a. NACP-National AIDS Control Programme

i. Advocating for the widespread adoption of prophylactic measures and facilitating the distribution of contraceptive sheaths(condoms) to individuals who are at risk.

ii. Guide and support HIV-positive individuals undergoing ART, with an emphasis on maintaining treatment adherence.

iii. PPTCT services, HIV-TB co-infection, and IEC efforts to increase consciousness and preventative actions concerning sexually transmitted diseases.

Desirable

i. Identifying and helping to manage co-infection with HIV and TB by linkage with the Microscopy Centre.

ii. Counselling, screening, and referral for HIV/STIs.

b. The NVBDCP (National Vector Borne Disease Control Programme):

i. Sub Centres routinely collect blood slides from individuals presenting with fever.

[284] Indian Public Health Standards (IPHS), Guidelines for Primary Health Centres, Revised 2012, Directorate of Health Services, Ministry of Health and Family Welfare, Government of India. pp. 6-14.(See Appendix No.IX)

ii. In regions with a high prevalence of Plasmodium falciparum (Pf) malaria, Sub Centres utilize rapid diagnostic tests (RDTs) as a means to accurately diagnose Pf malaria infections.

iii. Sub Centres ensure the proper administration of anti-malarial medications.

iv. Sub Centres maintain meticulous record-keeping and adhere to programme-specific reporting protocols in accordance with established rules and guidelines.

c. The NLEP (National Leprosy Eradication Programme) is crucial

i. Community health education addressing the symptoms, problems, durability, and accessibility of free medical care for leprosy.

ii. Reporting suspected leprosy cases to PHC (individuals with skin patches, nodules, thicker skin, reduced sensitivity in the hands and feet with muscular weakness).

iii. Sub Centres oversee Multi-Drug Therapy (MDT) doses, maintain treatment logs, and ensure consistent therapy completion for leprosy patients. Multi-Drug Therapy involves the use of a combination of antibiotics to effectively treat and manage leprosy

d.The RNTCP (Revised National Tuberculosis Control Programme)

i.Referrals to the PHC/Microscopy centre for probable symptomatic patients.

ii. DOTS distribution in the sub-centre, accurate documentation, and follow-up.

iii. Making sure that all patients comply with the treatment plan and finish it.

iv. Providing enough water for drinking at the sub-centre where the medications are taken.

v. Sputum sample collecting and transport

III. The Significance of Sub Centres in the Implementation of Nationwide Health Initiatives for NCDs

The amenities are intended to be rendered at all categories of Sub Health Centres

a. The NPCB *(National Programme for the Control of Blindness*)

i. Identifying individuals with impaired vision and their subsequent referral to the appropriate channels. Instances of reduced visual acuity is recorded in the registry of individuals with visual impairment.

ii. Disseminating information pertaining to ocular ailments, timely identification of visual impairment, accessible therapeutic interventions, and healthcare resources for the referral of such instances. The Integrated Eye Care (IEC) programme is a

significant initiative aimed at detecting instances of impaired vision in addition to easing the process of referring possible cases of cataracts.

iii. Providing support for the screening of school-aged children to identify cases of reduced visual acuity and facilitating appropriate referrals.

b. NPPCD ***(National Programme for Prevention and Control of Deafness)*** Identifying instances of hearing impairment and deafness through comprehensive household surveys

ii. ensure that appropriate referrals are made for individuals with hearing impairment to access necessary healthcare resources.

iii. A crucial undertaking executed at the sub-centre involves the dissemination of knowledge to the community, specifically targeting parents of young children, regarding the significance of adhering to appropriate nutrition protocols, promptly identifying hearing loss in infants and toddlers, prevalent auditory ailments, as well as the array of treatment alternatives for difficulties with hearing and hearing loss.

c. Mental Health Programme: Within the framework of the Mental Health Programme, Sub Centres are actively engaged in vital initiatives aimed at promoting psychological well-being. One of their primary functions is to detect individuals suffering from common mental disorders and refer them to local centers for appropriate care and ongoing support.

Sub Centres leverage knowledge, learning, and effective communication strategies to facilitate the early identification and prevention of mental health disorders within the community. Moreover, they prioritize the promotion of community involvement in primary prevention efforts, recognizing its critical role in enhancing mental health awareness and well-being.

d. The National Programme for the Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases (CVD), and Stroke

Sub Centres are instrumental in executing the objectives of the National Programme for the Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases (CVD), and Stroke. They place a significant emphasis on employing communication, education, and information dissemination strategies to promote healthy lifestyles and enhance public awareness concerning the prevention of these diseases.

The core objective of Sub Centres is to instill a heightened sense of awareness within the community. They strive to educate community members about recognizing potential signs and symptoms of these diseases promptly. Additionally, Sub Centres play a crucial role in ensuring the swift and efficient transfer of suspected cases to the appropriate healthcare authorities for further evaluation and management.

e. The National Iodine Deficiency Disorders Control Programme

Sub Centres are pivotal in the implementation of the National Iodine Deficiency Disorders Control Programme, which involves a comprehensive approach. They combine essential elements such as data collection, instructional activities, and interactive interventions to achieve the overarching goal of promoting the widespread use of iodized salt among individuals and communities.

One of the vital functions of Sub Centres is the examination of iodine concentrations in salt. This examination is carried out using salt testing kits, which are provided to Sub Centres by Accredited Social Health Activists (ASHAs). Sub Centres play a critical role in ensuring the availability and utilization of these kits, which are essential for monitoring and promoting iodized salt consumption.

f. The National Tobacco Control Programme is regarded as an extremely important programme.

i) The dissemination of information and promotion of health education pertaining to the negative consequences of tobacco consumption, particularly among expectant women and in connection to NCDs including Heart disease, malignancy, and persistent respiratory problems.

ii) The mandatory signage indicating the prohibition of smoking may be visibly displayed within the Sub-centre.

Desirable Function: Counselling services aimed at smoking cessation.

i) In addition to being prohibited within 100 yards of schools and other educational buildings, the sale of tobacco-related goods to individuals under the legal age limit of 18 is also prohibited. Efforts are made to educate the public about these laws.

ii). Disseminate information pertaining to legislation governing smoke-free environments in public areas.

h. Oral Health

i).Providing oral health education to school-aged and teenage children as well as pregnant and nursing moms, as well as other groups of people who may benefit from it.

ii). The provision of primary care and relevant advice for individuals experiencing oral health issues.

i. Preventing Disabilities:

Desirable

i. The dissemination of information about matters concerning health. with a disability-prevention focus.

ii. The annual house-to-house survey may include the identification of individuals with disabilities and their subsequent referral to appropriate resources.

j. The Elderly Health Care National Programme

i. Offering advice, direction and support to elderly individuals and their respective family members with regard to the promotion of healthy aging.

ii. The referral of elderly individuals who are unwell to primary healthcare facilities.

k. Promotion of Medicinal Herbs (Desirable)

The cultivation of indigenous medicinal herbs and plants within the proximity of the sub-centre is strongly advised, aligning with a prudent approach to holistic healthcare. This strategic practice encompasses the cultivation and nurturing of plant species that are inherently endemic to the local region. This initiative aims to use the strong medicinal characteristics of botanical resources by following the established guidelines set out by the Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homoeopathy (AYUSH).

l. Documentation of Vital Records (Necessary)

The process of documenting and communicating crucial occurrences such as childbirth and mortality, with a particular emphasis on maternal and neonatal cases, to the relevant healthcare institutions. Documentation of Vital Records is an essential process within the realm of primary healthcare. It involves the careful recording and effective communication of significant events, with a special focus on childbirth and mortality cases, particularly those concerning mothers and newborns. These crucial occurrences are documented accurately, capturing important details such as birth and

death information. This meticulous record-keeping serves as a vital link between these pivotal events and the healthcare institutions that need to stay informed.

Ayushman Bharat or "Healthy India"-Enriching Primary Healthcare through Health and Wellness Centres for Comprehensive Care (AB-HWCs)[285]

A component of the broader National Health Mission, the rural health endeavour on a national scale under NRHM [286], initiated by the Government of India on April 12th, 2005, was designed to offer economical and high-quality healthcare access to the rural population of India. Its primary emphasis was on addressing the healthcare needs of the country's most vulnerable women and children in these regions. The major objective of the mission is to establish a health delivery system that is community-owned and decentralized, with cross-sectoral convergence at all levels. This will allow for coordinated efforts to improve factors that have been shown to have a significant impact on people's health, such as access to clean water, proper sanitation, adequate nutrition, and equitable treatment of men and women[287]. The Union Cabinet granted approval for the establishment of the National Urban Health Mission (NUHM) on May 1, 2013. This initiative was designated as a sub-mission under the broader framework of the National Health Mission (NHM), alongside the National Rural Health Mission (NRHM)[288]. Furthermore, the National Rural Health Mission (NRHM) under the Eleventh Five Year Plan was conceptualized to bring medical services to underserved rural regions as part of its "inclusive growth" focus for the health sector[289]. The public was consulted during the development of 12th Plan, which prioritized assessing socioeconomic factors influencing well-being and providing universal health care through the Essential Health Package[290].

The primary objective of the National Health Mission (NHM) is to achieve universal access to equitable, affordable, and quality healthcare that is accountable and responsive to the needs of the population. It is considered the flagship health program of

[285] See Appendix No.VIII,Ayushman Bharat-HWC Brochure
[286] Aarti Dhar, (13 March 2012). "NRHM to be National Health Mission soon". *The Hindu*
[287] https://nhm.gov.in/index1.php?lang=1&level=1&lid=49&sublinkid=969 viewed on 6.03.22
[288] The National Health Mission | National Health Portal Of India (nhp.gov.in) viewed on 6.03.22
[289] See Grover, A., & Singh, R. B. (2019). Health Policy, Programmes and Initiatives. *Urban Health and Wellbeing: Indian Case Studies*, 251–266. https://doi.org/10.1007/978-981-13-6671-0_8
[290] Ibid

the nation. The NHM was crafted with the intention of providing support for services related to Reproductive and Child Health (RCH) and to effectively tackle the rising prevalence of communicable diseases, which include conditions like Tuberculosis, HIV/AIDS, and illnesses transmitted by vectors. In its initial phases, there was a notable lack of attention directed toward the increasing burden posed by non-communicable chronic diseases and the associated financial repercussions.

Research has indicated that primary healthcare units experience limited utilization within public healthcare systems for common health issues, except in cases involving childbirth[291]. According to a report released by the Indian government in 2018, it was stated that a significant number of individuals, exceeding six crores, were driven into poverty annually due to out-of-pocket medical expenditures[292]. One prominent factor that is readily apparent is the increasing involvement of the private sector in providing healthcare services, which currently accounts for 75 percent of outpatient care and 62 percent of inpatient care. illnesses that are not contagious, such as malignancies, diabetic complications, and heart conditions, constitute more than 60 percent of the overall mortality rate in India[293]. There exists a widely accepted global agreement about the crucial role of Primary Health Care in improving health outcomes among diverse demographic populations. It assumes a noteworthy function in the main and secondary prevention of diverse diseases, encompassing chronic, non-transmittable ailments. The implementation of Comprehensive Primary Health Care has been found to lead to reduced morbidity and death rates at a relatively lower cost, hence significantly reducing the need for secondary and tertiary medical treatments. In order to achieve a comprehensive and all-encompassing primary health care system, it is imperative that preventative, proactive, curative, rehabilitative, and hospice care are adequately addressed.

Ayushman Bharat is the Indian government's most significant healthcare programme, and it operates as an integral component of the broader National Health Mission (NHM). This programme encompasses a wide range of initiatives aimed at

[291] Key Indicators of Social Consumption in India on Health, National Sample Survey 71stRound,2014, Ministry of Statistics and Programme Implementation, GOI

[292] "Medical Expenses Push 6 Crore Indians To Poverty Annually: Top Official". *NDTV*. Press Trust of India. 17 November 2018. Archived from the original on 17 November 2018.

[293] WHO. Non-Communicable Diseases; Country Profile for India; 2014

improving healthcare accessibility, affordability, and quality for the citizens of India. It was introduced on February 1, 2018[294]. Aligned with the suggestion of the National Health Policy 2017 to attain the objective of Universal Health Coverage, this initiative aims to ensure inclusivity and equity as outlined in the Sustainable Development Goals (SDGs). Its core mission is to ensure that no individual is overlooked or excluded[295]. This is a healthcare initiative aimed at transitioning from a selective approach to a comprehensive and inclusive need-driven healthcare service delivery system. This approach covers a wide range of healthcare services, preventative in character, promotive, curative in nature, rehabilitative, and supportive care for the dying. The objective was to implement innovative measures that comprehensively tackle healthcare at all levels. These measures encompassed prevention, promotion, and ambulatory healthcare to achieve an integrated approach to addressing health issues. The Ayushman Bharat scheme comprises two components that are closely linked to each other.:

1. Health and Wellness Centre: The first segment of the Ayushman Bharat Programme focuses on infrastructure. In February of 2018, the Indian government announced plans to restructure and upgrade the country's existing network of Primary Health Clinics and Sub-Clinics into 1.5 million HWCs.

In order to achieve a truly efficacious implementation of the Ayushman Bharat Abhiyan, it is imperative that the fundamental pillars of this initiative, namely the Health and Wellness Centres, possess the capacity to furnish Comprehensive Primary Health Care (CPHC) by augmenting their range of services to cater to the primary healthcare requirements of all inhabitants within their designated districts. These novel services encompass a wide range of healthcare provisions, extending beyond the realms of maternity and paediatric care. These include handling non-communicable diseases, offering end-of-life care and corrective procedures, delivering oral, visual, and ear, nose, and throat medical services, extending mental health assistance, and providing primary-level emergency and trauma care. Additionally, fundamental

[294] Press Information Bureau, Government of India Dated 01 FEB 2018, (Release ID: 1518544) Visitor Counter: 247532 https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1518544

[295] https://nha.gov.in/PM-JAY viewed on 22.08.2022.

medications and diagnostic facilities are provided without imposing any financial stress.

The objective of promoting health and preventing illnesses is to maintain individuals' well-being through encouragement and facilitation of healthy choices and lifestyle modifications. This is done to reduce the risk of developing chronic diseases and health issues.

Services offered at the Health & Wellness Centre:

The Health & Wellness Centre is designed to offer a comprehensive range of vital healthcare services, catering to various stages of life and diverse health needs:

1. Maternal Health Services and Prenatal Care: At the forefront of its functions are Maternal Health Services and Prenatal Care, ensuring expectant mothers receive essential support and guidance throughout their pregnancy journey. This encompasses a spectrum of care, from monitoring maternal health indicators to providing prenatal check-ups, thereby fostering a nurturing environment for both mother and unborn child.

2. Newborn and Infant Health Services: The Health and Wellness Centres are also expected to dedicate their resources to Newborn and Infant Health Services, encompassing specialized care to safeguard the well-being of newborns and infants. This includes central aspects such as neonatal care, immunizations, and early developmental assessments, contributing to a strong foundation for healthy growth and development.

3. Management of Mental Illness: The Health & Wellness Centres are expected to extend their provisions to encompass the Management of Mental Illness, a critical aspect of holistic healthcare. By offering support, counselling, and interventions, individuals dealing with mental health challenges will receive the care and understanding they deserve.

4. Chronic Transmittable Illnesses and Non-Transmissible Diseases: Chronic Transmittable Illnesses, such as infectious diseases, are to be given dedicated attention at the Centre. Alongside, Non-Transmissible Diseases, encompassing conditions like diabetes and hypertension, are to be managed through comprehensive medical care and lifestyle interventions including preventive measures and treatments to curb the spread of transmittable illnesses.

5. Children's Health: Ensuring the health of younger individuals through vaccinations, preventive care, and developmental assessments and fostering a foundation of wellness for children within the community.

6. Dental Care: Promoting oral health through regular check-ups and necessary treatments and addressing dental concerns and ensuring overall oral well-being.

7. Eye Care: Promoting vision health services and corrective measures and supporting optimal eye health and addressing visual impairments.

8. Geriatric Care: The Centre is also expected to recognize the unique health needs of the elderly through the promotion of Geriatric Care and providing information and promoting healthy aging and enhancing the well-being of senior citizens.

9. Aesthetic Medicine: In a modern approach to wellness, the Centre also offers Aesthetic Medicine services, acknowledging the importance of both physical and emotional well-being and offering services to enhance self-esteem and promote overall wellness. This inclusive array of services underscores the Health & Wellness Centre's commitment to fostering an all-encompassing method to well-being that addresses the varied requirements of the community, and promoting overall well-being.

Incorporating these diverse services, the Health & Wellness Centre embodies a comprehensive method to well-being, addressing the assorted requirements of the community. and fostering well-being across all stages of life.

2. **The National Health Protection Mission (AB-NHPM)**: The Pradhan Mantri Jan Arogya Yojna, widely recognized as PM-JAY, constitutes the National Health Protection Mission, forming the second facet of the Ayushman Bharat Programme. This initiative represents the government-backed rendition of the world's most extensive health insurance scheme, operating under the name PM-JAY. On March 21, 2018, the Indian Cabinet granted approval for the execution of the Ayushman Bharat Yojana-National Health Protection Mission (AB-NHPM)[296]. The Ministry of Health and Family Welfare introduced it on September 1, 2018. Around 10.74 crore impoverished and susceptible households (equivalent to nearly 50 crore beneficiaries),

[296] Press Information Bureau,Government of India,Cabinet Dated 21st March,2018 ,Release ID : 177816, 20:29 IST https://pib.gov.in/newsite/PrintRelease.aspx?relid=177816

constituting the poorest 40 percent of India's population, would be encompassed by the coverage. Each family is entitled to Rs. 5 lakhs annually for hospitalization necessitating secondary and tertiary care[297]. Based on the deprivation and occupational criteria extracted from the Socio-Economic and Caste Census 2011 (SECC 2011) database, the beneficiaries identified encompass both rural and urban regions, and they consist of... "over 100 million households from impoverished and susceptible demographics." Within the context of the SECC, households are classified and ordered based on their respective socioeconomic status. The selection process utilizes specific criteria to determine the inclusion and exclusion of homes in the study[298]. The households residing in rural areas that are considered eligible are subsequently categorized according to their status concerning seven distinct deprivation criteria (D1 to D7), households located in urban areas are classified based on their occupation categories[299].

The journey to rehabilitate and upgrade the current Sub-Health Centres and Primary Health Centres. - AB-HWC commenced on April 14, 2018, the initiative took its first steps in Jangla, a tranquil village situated in the Bijapur District of Chhattisgarh,[300] and has made its way all over the country to fulfil the dream of Universal Health Coverage. As of December 8, 2021, a cumulative count of 80,701 health and wellness centres (AB-HWCs) have been operational due to the Ayushman Bharat initiative. This figure comprises 54,618 Sub-Health Centres (SHC), 21,898 Primary Health Centres (PHC), and 4,155 Urban Primary Health Centres (UPHC)[301]. As of March 2022, the combined and cooperative endeavours of the States/Union Territories and the Central Government have led to the establishment of 117,440 operational AB-HWCs throughout the nation[302] . By the conclusion of December 2022, the central government is intent on changing the current primary health centres and sub-health centres into HWCs, which will allow them to meet the goal

[297] https://nha.gov.in/PM-JAY viewed on 22.08.22
[298] https://nha.gov.in/PM-JAY viewed on 6.03.22
[299] https://nha.gov.in/PM-JAY viewed on 6.03.22
[300] https://pib.gov.in/PressReleasePage.aspx?PRID=1816131 viewed on 6.03.22
[301] https://www.ndtv.com/india-news/over-80-000-health-wellness-centres-set-up-under-ayushman-bharat-centre-2650825 viewed on 13.08.22
[302] https://pib.gov.in/PressReleasePage.aspx?PRID=1816131 viewed on 13.08.22

that has been set of 150,000 HWCs that are operational. Mizoram started a little bit later than other progressive states, but it has swiftly caught up and begun the process of implementation of transforming the nature of primary healthcare service provision from selective to a comprehensive approach. This is because Mizoram has taken the inspiration from other progressive states. It was in the month of April 2022 that the Health Minister of Mizoram made the announcement that all of the public health centres and health sub-centres located around the state will be refurbished to become health and wellness centres[303]. Currently, there are 368 health units that have undergone upgrades to become Health and Wellness Centres (HWCs). Additionally, 310 Health and Wellness Officers (HWOs) have been newly appointed and assigned to these recently established HWCs[304].

The Sub-centres/Clinics in Mizoram, like in other regions of India, are crucial peripheral establishments that are accountable for delivering a diverse array of primary healthcare services to the populace. They also have a significant role in executing numerous grassroots-level initiatives in Health & Family Welfare. The Sub-centre/Clinics play a vital role in facilitating communication and access to primary health care services at the local level, serving as an essential point of contact for the community. The organization provides a comprehensive array of healthcare services encompassing female reproductive and paediatric medical services, family planning initiatives, and educational interventions pertaining to cleanliness and sanitation. They also provide general healthcare services, treating common diseases either free of charge or at a low cost. Furthermore, these centres make available costly medications free or at a modest fee and administer vaccinations against diseases like tuberculosis, cholera, polio, and other outbreaks without charge. They also conduct awareness campaigns to enlighten the public about the prevention and origins of both communicable and non-communicable diseases. The success of a nationwide programme hinges significantly on the effective operation of Sub-centres, as they constitute the primary point of interaction with the community. It is crucial that these

[303] https://nenow.in/top-news/mizoram-to-upgrade-sub-centres-and-phcs-to-health-and-wellness-centres.html

[304] 11th Session of the 8th Mizoram Legislative Assembly on 21st February,2023 Live Telecast available on https://www.youtube.com/live/Dwao6-uWVK8?feature=share

Sub-centres provide services that meet the community's acceptable standards to ensure the success of the programme.

The chapter presents a comprehensive account of the functioning of Sub Health Centres in Mizoram, also encompassing a brief historical background of its evolution in Aizawl and Lunglei. It explores the contribution of Christian missionaries and the government towards the inception and progression of primary healthcare in the state. The chapter also probes into the present condition of primary healthcare delivery services, with a particular emphasis on the role, functions, and responsibilities of Sub Centres/Clinics as the primary interface between individuals and the healthcare system. The evaluation of this role encompasses both essential and desirable attributes, thereby facilitating an integrated comprehension of its operations and implications.

CHAPTER VI

RESULTS AND DISCUSSION

The previous chapter provided an overview of the functioning of Sub Centres in Mizoram, including their history and development within the primary health care delivery system. A comprehensive study such as this requires limiting the geographical parameters of the study.The research focuses specifically on the operations of Sub health centres in Aizawl District and Lunglei District. Aizawlis the capital of the state and serves as the headquarters for the northern region, while Lunglei District symbolizes the southern part of Mizoram, the largest district in terms of area, and the seat of the High-Powered Committee. The current state of primary healthcare delivery services has been discussed in relation to the essential and desirable roles and functions carried out by the Sub Centres/Clinics in Mizoram. These centres are the people's first point of contact with the healthcare system. The chapter also explores the implementation of the Ayushman Bharat Programme - Health and Wellness Centres in Mizoram, and the resulting alterations in the nomenclature and operations of Sub-Centres in the region.

This chapter presents an examination of the field study undertaken within specific Sub Centres situated in Aizawl and Lunglei and reveals an in-depth analysis encompassing several key facets. The analysis primarily focuses on various aspects like the demographic traits of the respondents respondents' characteristics, availability of manpower, infrastructure and facilities, services, service standards, public awareness, opinions, and satisfaction levels regarding the function and role of the sub-centre. The present chapter also includes the viewpoints and perspectives of Health and Wellness Officers, Trained ANM, and MPW officials operating in the Sub Centres, suggested improvements and the involvement of ASHAs in service provision.

The current study involves a descriptive and cross-sectional examination of Sub Centres and Health and Wellness Centres as they exist in Mizoram. The research delves into the operational aspects of these healthcare facilities. The primary focus of this study revolves around the Sub Health Centres, Clinics, and Health and Wellness Centres situated in Aizawl and Lunglei with the aim of identifying their positions,

duties, and obligations, as well as the challenges and issues they face in delivering services. The study also seeks to identify potential solutions to these challenges.

A unique feature and among the most notable and commendable practices within Mizoram's healthcare system is the establishment of Sub Centre Clinics. The Sub Centre Clinics are health units that have been set up in almost all the localities or vengs as they are called in Mizoram, by the Mizoram Government to provide primary healthcare services under their respective parent Sub health centres. These Clinics submit monthly reports to their respective parent Health Sub Cent who then compile these reports and add them to the report of the Sub Centres[305]. These Clinics are not formally prescribed by the central government and neither are they referenced in the Indian Public Health Standards (IPHS) guidelines for Sub Centres, nor do they find mention therein. Therefore, these clinics are exclusive to Mizoram State. As far as can be comprehended, no other states of the Indian Union have set up these health units.

The Sub Health Centre Clinics operate under the auspices of their parent Sub Health Centres and carry out comparable functions, with analogous roles and responsibilities to those of their parent Sub Health Centres. There exist no operational guidelines for the setting up of or for the operation of these Sub Centre Clinics. As such, there is no uniformity in the mode of functioning including accommodation and supplies which differs from district to district and locality to locality. In certain areas, sub-centre clinics procure their medical supplies from the central office, whereas in other regions, they are reliant on their parent health sub-centres for essential medical supplies such as malaria test kits and medicines. The Health Clinics previously obtained their supplies directly from the supply centre. In addition, it may be noted that certain sub-centres clinics possess emergency first aid resources, such as suturing materials, whereas other sub-centre clinics lack access to such materials[306].These Health Clinics are not granted funds for their functioning, unlike their parent Sub Centres who get both Untied Funds and Maintenance Funds from the Government. The

[305] Based on a personal interview with Ms Huansiami, Health Worker, Venghnuai Sub Centre on 18.07.23

[306]Based on personal interviews with Pu Latea, Health Supervisor, Ngentiang and Pi Hunsiami, Health Worker, Venghnuai on 18.07.23

Sub Health Centre clinics are housed in government buildings or buildings owned by the village council or local council. At one point, there were Health Centre Clinics housed in privately rented buildings, and each household in the neighbourhood contributed funds to cover the rent for the Sub Centre Clinics[307].

As regards how these Health Clinics are set up, it has become a common practice for each locality to have or aspire to have a health clinic and depends on the concerned local leaders to take necessary steps for setting up Health Clinics in their respective locality[308]. This trend brings forth both advantageous and detrimental implications. On the favourable side, communities and families have easier access to these health units. On the other hand, simply adding to the number of healthcare facilities does not equate to more efficient and effective healthcare delivery if these institutions lack the necessary tools, resources, and personnel to meet the community's healthcare requirements.

Data Source

The current study uses both primary and secondary data to conduct a cross-sectional, descriptive-analytic investigation. The primary data involved a field study where a pre-determined Schedule of enquiry/Questionnaires containing a combination of both close ended and open-ended questions were administered among beneficiaries, health workers and Health and Wellness Officers posted in thirty-eight (38) Sub Centres/Health and Wellness Centres/Clinics within Aizawl and Lunglei during July-August,2022. The selected Sub-Centres & Sub-centre clinics in Aizawl and Lunglei included – Tanhril SHC-HWC,Chawnpui SHC-HWC, Chanmari SHC Clinic, Chandmari SHC-HWC,Maubawk SHC Clinic,Thakthing SHC Clinic, Luangmual SHC-HWC,Chandmari West SHC-HWC, Vaivakawn SHC-HWC, Bethlehem vengthlang SHC-HWC, Tlangnuam SHC-HWC, Ramhlun SHC-HWC, Ramhlun SHC, Zotlang SHC-HWC, Zemabawk SHC-HWC, Bawngkawn SHC-HWC, Dinthar SHC, Zarkawt SHC Clinic, Chaltlang SHC-HWC, Kulikawn SHC-HWC, Thuampui SHC Clinic, Rahsiveng SHC-HWC, Vanhne SHC, Hrangchalkawn SHC-HWC, Pukpui SHC-HWC, Zohnuai SHC-HWC, Electric SHC-HWC, Farm Veng SHC-

[307] Based on a personal interview with Pu Laltea,Health Supervisor,Ngentiang on 18.07.23.

[308] Based on a personal interview with Ms Huansiami,Health Worker, Venghnuai Sub Centre on 15.04.2023

HWC, Ramthar SHC-HWC, Luangmual SHC Clinic, Theiriat SHC, Zotlang SHC-HWC, Lunglawn SHC-HWC, Venghlun SHC-HWC, College Veng SHC Clinic, Zotuitlang SHC-HWC, Chandmari SHC-HWC and Zobawk SHC-HWC(Table.No.6.1).

Face-to-face meetings and conversations with government representatives, healthcare professionals, and ASHAs (Accredited Social Health Activists) covering different healthcare units contributed to gathering data on crucial concerns that would not have been possible through the simple administration of a questionnaire. The questionnaire employed in this study encompassed a comprehensive range of inquiries,delving into multiple dimensions of healthcare provision at the Sub Health Centre.. The questionnaire contained questions about the respondents' personal information, broad details about the Sub Health Centre, manpower availability and physical structures, accessibility and quality of service, theexistence and accessibility of ASHA, Covid-related services, Non-Communicable Diseases (NCD) screening and services, as well as their ideas and recommendations for enhancing the Sub-Centre's provision of healthcare.

A combination of convenience sampling method and purposive non-probability sampling method were used to select 38 health sub-centres in the Aizawl and Lunglei districts. These were the preferred methods because the data collection from the identified centres is conveniently available and they are easy to contact and reach out. All Sub centres in Mizoram follow the same operational guidelines issued by the central government so there is proper standardization and uniformity in the functioning of all Sub Centres. These sampling methods have enabled the achievement of sample size in a relatively fast and inexpensive manner given that the sub centres are spread over a large geographical area. The personnel including the health and wellness officers, para medical staff, administrative and support staff and beneficiaries have been covered by way of a combination of closed-ended and open-ended questionnaire and their viewpoints and suggestions have been studied and analysed in the broader framework of Sub Health Centres and Clinics.

Table No.6.1

Locality and Sub Centres/Clinics

Sl.No	District	Locality	Sub Centre	Frequency	Percent	Cumulative Percent
1	Aizawl	Bawngkawn	Bawngkawn SHC-HWC	5	2.5	2.5
2	Aizawl	Bethlehem Vengthlang	Bethlehem Vengthlang SHC-HWC	4	2.0	4.5
3	Aizawl	Chaltlang	Chaltlang SHC-HWC	10	5.0	9.5
4	Aizawl	Chandmari	Chandmari SHC Clinic	5	2.5	12.0
5	Lunglei	Chandmari	Chandmari SHC-HWC	5	2.5	14.5
6	Aizawl	Chandmari West	Chandmari West SHC-HWC	5	2.5	17.0
7	Aizawl	Chawnpui	Chawnpui SHC-HWC	5	2.5	19.5
8	Lunglei	College Veng	College Veng SHC Clinic	5	2.5	22.0
9	Aizawl	Dawrpui Vengthar	Dinthar SHC	5	2.5	24.5
10	Aizawl	Dinthar	Dinthar SHC Clinic	4	2.0	26.5
11	Lunglei	Electric Veng	Electric SHC-HWC	10	5.0	31.5
12	Lunglei	Farm Veng	Farm Veng SHC-HWC	5	2.5	34.0
13	Lunglei	Hrangchalkawn	Hrangchalkawn SHC-HWC	2	1.0	35.0
14	Aizawl	Kulikawn	Kulikawn SHC-HWC	4	2.0	37.0
15	Lunglei	Luangmual	Luangmual SC Clinic	2	1.0	38.0
16	Aizawl	Luangmual+Chawlhhmun	Luangmual SHC - HWC	5	2.5	40.5
17	Lunglei	Lunglawn	Lunglawn SHC-HWC	2	1.0	41.5
18	Aizawl	Maubawk	Maubawk SHC Clinic	5	2.5	44.0
19	Lunglei	Pukpui	Pukpui SHC-HWC	6	3.0	47.0
20	Lunglei	Rahsiveng	Rahsiveng SHC-HWC	3	1.5	48.5
21	Aizawl	Ramhlun	Ramhlun SHC	5	2.5	51.0
22	Aizawl	Ramhlun Venglai	RamhlunVenglai SHC-HWC	5	2.5	53.5
23	Lunglei	Ramthar	Ramthar SHC-HWC	3	1.5	55.0
24	Aizawl	Tanhril	Tanhril SHC-HWC	10	5.0	60.0
25	Aizawl	Thakthing	Thakthing SHC Clinic	5	2.5	62.5

Sl.No	District	Locality	Sub Centre	Frequency	Percent	Cumulative Percent
26	Lunglei	Theiriat	Theiriat SHC	8	4.0	66.5
27	Aizawl	Thuampui	Thuampui SHC Clinic	3	1.5	68.0
28	Aizawl	Tlangnuam	Tlangnuam SHC-HWC	5	2.5	70.5
29	Aizawl	Vaivakawn	Vaivakawn SHC-HWC	4	2.0	72.5
30	Lunglei	Vanhne	Vanhne SHC	7	3.5	76.0
31	Lunglei	Venghlun	Venghlun SHC-HWC	3	1.5	77.5
32	Aizawl	Zarkawt	Zarkawt SHC Clinic	5	2.5	80.0
33	Aizawl	Zemabawk	Zemabawk SHC-HWC	7	3.5	83.5
34	Lunglei	Zobawk	Zobawk SHC-HWC	4	2.0	85.5
35	Lunglei	Zohnuai	Zohnuai SHC-HWC	9	4.5	90.0
36	Lunglei	Zotlang	Zotlang SHC-HWC	3	1.5	91.5
37	Aizawl	Zotlang	Zotlang SHC-HWC	10	5.0	96.5
38	Lunglei	Zotuitlang	Zotuitlang/Hnahchang SHC-HWC	7	3.5	100.0
			Total	**200**	**100.0**	

Source:Field Study

The research was conducted utilizing a sample of 200 participants, comprising 116 beneficiaries from Aizawl and 84 from Lunglei, as well as 104 health workers, Health and Wellness Officers, and other Officials, with 55 from Aizawl and 49 from Lunglei. The qualitative data pertaining to the viewpoints of health officials have been presented in the paragraphs in the relevant chapters, without being represented as quantitative data in tables or figures.

Availability of Manpower in Sub-Centres/Clinics

The Central Government Guidelines and IPHS for Sub Centres stipulate that there may be two types of Sub Centres-Type A and Type B[309]. The IPHS recommends that Type A Sub Centres have two ANMs (one considered essential and

[309] In light of the current heterogeneous state of Sub centres across various regions of India, a classification system has been implemented to differentiate between two distinct categories, namely Type A and Type B. The Type A sub-centre is capable of offering all the recommended services, with the exception of delivery facilities. Type B will offer all the suggested amenities, including provisions for performing deliveries at the Sub-centre premises.

the other desirable), along with one Male Health Worker (essential). This staffing configuration is advised to effectively conduct the diverse activities and services mandated by the standards. In a Type B Sub Centre, it is necessary to maintain a staff composition consisting of two ANMs and one male health worker, with both of these roles being essential. Additionally, it is considered advantageous to include one Staff Nurse or an additional ANM (if a Staff Nurse is unavailable) within Type B Sub Centres, provided that there are 20 or more deliveries in a given month. If there are fewer than 20 deliveries in a given month, an ANM is sufficient. In Mizoram, this type of classification for dividing sub-centres into Type A or Type B categories does not exist. However, some sub centres with good catchment area, located in relatively, remote areas with some distance from PHC have been selected as delivery points and are equipped for carrying out intranatal services. However, the majority of Sub Centres and clinics, whether located in urban or rural regions and situated near more advanced healthcare facilities like Primary Health Centres (PHCs), Community Health Centres (CHCs), or District Hospitals, where delivery services are provided, could fall into Type A and these facilities are not adequately equipped to undertake childbirth procedures, even though the health officials are trained to handle deliveries in the event of an emergency.

Table 6.2 presents the findings of the field visit to individual healthcare units that were conducted in order to determine the amount of available personnel in the communities and sub-centres/clinics that were the focus of this research. Every Health and Wellness Centre now boasts recently appointed Health and Wellness Officers., Pukpui SHC-HWC has a Medical Officer (MO)AYUSH. 18 of the Sub centres have one Auxilliary Nurse Midwife (ANM),15 of the Sub Centres have 2 ANMs, only one of the Sub Centres-Kulikawn SHC-HWC has three (3) ANMs and 3 of the Sub Centres- Hrangchalkawn SHC-HWC,Luangmual SHC-HWC and Zotuitlang SHC-HWC- do not have ANMs posted in the Sub Centre. Seventeen (17) Sub Centre/Clinics do not have MPW(Male). Two health units-Thakthing SHC Clinic and Ramhlun Venglai SHC-HWC do not have health attendants, all other Sub Centres and even Clinics have one health attendants in the Sub Centre.

It is desirable even necessary that each Sub Centre or Clinic have the minimum number of required health workers i.e., One ANM, One MPW(Male) and one Health Attendant in order for the Sub Centre to perform their duties efficiently.

Table No.6.2
Manpower Availability

Sl.No	Location	Sub Centre	HWO	ANM	MPW	4th Grade	Total
1	Bawngkawn	Bawngkawn SHC-HWC	1	2	1	1	5
2	Bethlehem Vengthlang	Bethlehem Vengthlang SHC-HWC	1	1	0	1	3
3	Chaltlang	Chaltlang SHC-HWC	1	2	0	1	4
4	Chandmari	Chandmari SHC-HWC	1	2	0	1	4
5	Chandmari	Chandmari SHC Clinic	0	2	1	1	4
6	Chandmari West	Chandmari West SHC-HWC	1	2	1	1	5
7	Chawnpui	Chawnpui SHC-HWC	1	1	1	1	4
8	College Veng	College Veng SHC Clinic	0	1	1	1	3
9	Dawrpui Vengthar	Dinthar SHC	0	2	0	1	3
10	Dinthar	Dinthar SHC Clinic	1	1	1	1	4
11	Electric Veng	Electric SHC-HWC	1	1	0	1	3
12	Farm Veng	Farm Veng SHC-HWC	1	1	1	1	4
13	Hrangchalkawn	Hrangchalkawn SHC-HWC	1	0	1	1	3
14	Kulikawn	Kulikawn SHC-HWC	1	3	0	1	5
15	Luangmual	Luangmual SC Clinic	0	2	0	1	3
16	Luangmual+ Chawlhhmun	Luangmual SHC - HWC	1	0	2	1	4

Sl.No	Location	Sub Centre	HWO	ANM	MPW	4th Grade	Total
17	Lunglawn	Lunglawn SHC-HWC	1	1	1	1	4
18	Maubawk	Maubawk SHC Clinic	0	2	0	1	3
19	Pukpui	Pukpui SHC-HWC	1(MO)	2	0	1	4
20	Rahsiveng	Rahsiveng SHC-HWC	1	1	1	1	4
21	Ramhlun	Ramhlun SHC	0	2	1	1	4
22	Ramhlun Venglai	RamhlunVenglai SHC-HWC	1	2	0	0	3
23	Ramthar	Ramthar SHC-HWC	1	1	1	1	4
24	Tanhril	Tanhril SHC-HWC	1	1	1	1	4
25	Thakthing	Thakthing SHC Clinic	0	1	1	0	2
26	Theiriat	Theiriat SHC	0	1	1	1	3
27	Thuampui	Thuampui SHC Clinic	0	2	0	1	3
28	Tlangnuam	Tlangnuam SHC-HWC	1	2	1	1	5
29	Vaivakawn	Vaivakawn SHC-HWC	1	1	1	1	4
30	Vanhne	Vanhne SHC	0	1	0	1	2
31	Venghlun	Venghlun SHC-HWC	1	1	1	1	4
32	Zarkawt	Zarkawt SHC Clinic	0	2	0	1	3
33	Zemabawk	Zemabawk SHC-HWC	1	1	1	1	4
34	Zobawk	Zobawk SHC-HWC	1	1	0	1	3
35	Zohnuai	Zohnuai SHC-HWC	1	1	0	1	3
36	Zotlang	Zotlang SHC-HWC	1	1	0	1	3
37	Zotlang	Zotlang SHC-HWC	1	2	0	1	4
38	Zotuitlang	Zotuitlang/Hnahchang SHC-HWC	1	0	1	1	
		Total	**29**	**50**	**22**	**35**	136

Source: Field Study

Response from Beneficiaries

The basic demography of the sample beneficiaries was profiled to help us understand the demographic composition of the population and the contextual setting surrounding Sub Health Centres and the beneficiaries. The indicators included were gender, age, qualifications, status in family, occupation, earnings, and financial condition. The research results suggest that from the complete sample, 81 percent were female (n=162) and 19 percent were male (n=38), as presented in Table 6.3. The prevalence of this phenomenon is not unexpected, since it corresponds with the core goal and focal point of healthcare delivery at the sub-centre, which revolves around Reproductive and Child Health (RCH). The data shows that a significant majority of the respondents, specifically 54.5 percent, are under the age of 36. Moreover, 15 percent of the participants are below the age of 25, with 39.5 percent falling in the 25-35 age bracket.This age bracket is typically associated with childbearing and productivity. The data shows that 35.5 percent of the participants are situated between the ages of 36 and 50 years. This was slightly higher percentage than expected but can be attributed to the greater stress given to the increased priority given to NCD Services after implementation of Ayushman Bharat-HWC.Another reason could be due to the fact that time has progressed and people get married and have children at a later age. 10 percent of the beneficiaries are above 50 years of age(Table No.6.3).

The table indicates that 45 percent of the beneficiaries have finished high school, 30.5 percent have completed higher secondary level while 21 percent were graduates. Three of the respondents (1.5 percent) have completed primary education and another three have also completed Middle School. Only one of the 200 respondents, has completed Post Graduation (Table.No.6.3). The sample beneficiaries were categorized based on their status within their families. Out of the total sample, 13.5 percent were male heads, while the majority of the sample, accounting for 54 percent, were female heads. Additionally, 25 percent of the sample were daughters or daughters-in-law. According to Table No. 6.3, only 7.5 percent of the group consisted of sons, with a total of 10 individuals. Additionally, there were only 4 grandmothers and 1 grandfather present. (Table No.6.3).

As seen in the table 6.3, 35.5 percent of individuals relied on business as their primary source of income,22 percent relied on farming as their main source of

sustenance, 21.5 percent, of those surveyed either worked for the government or have family members who do. Additionally, a smaller percentage of 3 percent are students,7.5 percent stated that they earned money doing whatever work was available and had no steady source of income. The remaining 1 percent were housewives, 0.5 percent were manual labourers,0.5 percent were pensioners,1 percent were tailors and 0.5 were unemployed and 7 percent, reported having different sources of income that were Not specified (Table No. 6.3). Table No.6.3 also shows the economic status of families of beneficiaries (APL/BPL status) based on their Ration Cards issued by the state government. The highest percentage of beneficiaries belong to APL families (77percent) with white-coloured ration cards,20.5percent of beneficiaries belong to BPL families with blue Ration Cards and only 2.5 percent are the poorest of the poor (AAY).

Table 6.3 displays the family income of the participants. The majority of respondents, comprising 48.5 percent, reported an income range of 10,000-30,000 INR per month. A smaller proportion of respondents, accounting for 26.5 percent, reported an income range of 5000-10,000 INR per month. The remaining 25 percent of respondents reported an income exceeding a monthly income of Rs 30,000. This implies that the services provided at the Subcentre level are beneficial for households spanning different socioeconomic levels.

Table 6.3

Social and Demographic Information on Respondents

Sl.No	Particulars	Frequency	Percent	Cumulative Percent
1	**Gender**			
1.1	Male	38	19	19
1.2	Female	162	81	100
Total		**200**	**100**	
2	**Age**			
2.1	< 25	30	15.0	15
2.2	25-35	79	39.5	54.5
2.3	36-50	71	35.5	90.0
2.4	> 50	20	10.0	100.0
Total		**200**	**100**	
3	**Level of Educational**			
3.1	Graduation	42	21.0	21.0

Sl.No	Particulars	Frequency	Percent	Cumulative Percent
3.2	High school	90	45.0	66.0
3.3	Higher Secondary	61	30.5	96.5
3.4	Middle	3	1.5	98.0
3.5	Post Graduate	1	.5	98.5
3.6	Primary	3	1.5	100.0
Total		**200**	**100.0**	
4	**Status in family**			
4.1	Son	10	5	5
4.2	Father	27	13.5	18.5
4.3	Grandfather	1	0.5	19
4.4	Daughter	50	25	44
4.5	Mother	108	54	98
4.6	Grandmother	4	2	100
Total		**200**	**100**	
5	**Occupational Status**			
5.1	Business	71	35.5	35.5
5.1	Farming	44	22.0	57.5
5.1	Govt service	43	21.5	79.0
5.1	Housewife	2	1.0	80.0
5.1	Manual labourer	1	.5	80.5
5.1	Pensioner	1	.5	81.0
5.1	Student	6	3.0	84.0
5.1	Tailor	2	1.0	85.0
5.1	Unemployed	1	.5	85.5
5.1	Whatever is available	15	7.5	93.0
5.1	Others	14	7.0	100.0
Total		**200**	**100.0**	
6	**Economic Status**			
6.1	AAY	5	2.5	2.5
6.2	APL	154	77.0	79.5
6.3	BPL	41	20.5	100.0
Total		**200**	**100.0**	
7	**Monthly Income (in ₹)**			
7.1	10,000-30,000	97	48.5	48.5
7.2	5000-10,000	53	26.5	75
7.3	> 30,000	50	25	100

Sl.No	Particulars	Frequency	Percent	Cumulative Percent
Total		**200**	**100**	

Source: Field Study

Availability and condition of Physical Infrastructure

The first essential physical infrastructure requirement of a Sub-Centre is the availability of a government-designated building for its accommodation. The current study established through field visits to specific health care units that out of the 38 Sub Health Centres under study,32 of them are accommodated in government-designated buildings, four(4) of the Sub Centres/clinics located in Bawngkawn, Thakthing,Thuampui, Zarkawt are accommodated in Local Council Building free of rent and two(2)- Chandmari SHC and Ramhlun SHC are attached to YMA Hall(Table No. 6.5).Field visits have also determined the type of building. Out of 38 health units, 23 are Pucca buildings ,5 are Semi-Pucca and 10 are Kuchha buildings.

Table No.6.5
Type and Ownership of Building

Sl.No	Name of Locality	Type of building	Owner of Sub-Centre Building
1	Bawngkawn	Pucca	Accommodated in Local Council House free of rent
2	Bethlehem Vengthlang	Semi-Pucca	Government
3	Chaltlang	Pucca	Government
4	Chandmari	Pucca	Government
5	Chandmari(Aizawl)	Pucca	Attached to YMA Hall
6	Chandmari West	Pucca	Government
7	Chawnpui	Pucca	Government
8	College Veng	Kuchha	Government
9	Dawrpui Vengthar	Kuchha	Government
10	Dinthar	Pucca	Government
11	Electric Veng	Semi-Pucca	Government
12	Farm Veng	Pucca	Government
13	Hrangchalkawn	Pucca	Government
14	Kulikawn	Pucca	Government
15	Luangmual	Kuchha	Government
16	Luangmual+Chawlhhmun	Kuchha	Government
17	Lunglawn	Kuchha	Government
18	Maubawk	Semi-Pucca	Government

Sl.No	Name of Locality	Type of building	Owner of Sub-Centre Building
19	Pukpui	Pucca	Government
20	Rahsiveng	Pucca	Government
21	Ramhlun	Pucca	Attached to YMA Hall
22	Ramhlun Venglai	Pucca	Government
23	Ramthar	Kuccha	Government
24	Tanhril	Pucca	Government
25	Thakthing	Pucca	Accommodated in Local Council House free of rent
26	Theiriat	Kuchha	Government
27	Thuampui	Pucca	Accommodated in Local Council House free of rent
28	Tlangnuam	Pucca	Government
29	Vaivakawn	Pucca	Government
30	Vanhne	Semi-Pucca	Government
31	Venghlun	Pucca	Government
32	Zarkawt	Pucca	Accommodated in Local Council House free of rent
33	Zemabawk	Kuchha	Government
34	Zobawk	Semi-Pucca	Government
35	Zohnuai	Kuchha	Government
36	Zotlang Lunglei	Kuchha(concrete extension after HWC)	Government
37	Zotlang	Pucca	Government
38	Zotuitlang	Pucca	Government

Source: Field Study

Upon inquiring with beneficiaries about the state of the building and rooms, only 37 percent affirmed that the buildings and rooms were in good condition. Almost two third of the respondents (63 percent) observed that the building and rooms were not in good condition. (Table No.6.6). The reasons were fairly common- some stated that the buildings and rooms were too small, some stated that there was not even enough room for a separate examination room where some degree of privacy could be observed, some patients revealed that only 2-3 patients could fit inside the waiting area which became a real issue, particularly on vaccine days. Some of the beneficiaries

suggested that the Health Department may have proper accommodation facilities for the Sub health centres in place of existing old and dilapidated Sub Centres.

Out of this 63 percent,59 percent of respondents stated that although the building and rooms were not in good condition, they were functional while 3.5 percent (a total of 7 beneficiaries) believed that the buildings and rooms were not functional and unfit for treating patients (Table. No.6.6).

With respect to overall cleanliness,85.5 percent said the Sub Centre was Clean enough,13.5 percent said it was clean in some places only and 1 percent could not say whether it is clean or otherwise.

Table No.6.6

Availability and Condition of Physical Infrastructu

Whether a Designated Government Building is Available	**Frequency**	**Percent**	**Cumulative Percent**
No	28	14	14
Yes	172	86	100
Total	**200**	**100**	
Other Arrangements for Accommodation			
Accommodated in Local Council House free of cost	18	9	9
Attached to YMA Hall	10	5	14
N.A	172	86	100
Total	**200**	**100**	
Types of Building.			
Kuchha	38	19	19
Kuchha (concrete extension after HWC)	3	1.5	20.5
Pucca	130	65	85.5
Semi-Pucca	29	14.5	100
Total	**200**	**100**	
Whether Building /Rooms are in Good Condition.			
No	126	63	63
Yes	74	37	100
Total	**200**	**100**	
Whether Building is Functional.			
N.A	75	37.5	37.5
No, Unfit for treating patients	7	3.5	41
Yes	118	59	100
Total	**200**	**100**	
Whether Sub Centre is Clean			

Clean	171	85.5	85.5
Clean in some places only	27	13.5	99
Not Clean Anywhere	0	0	99
Cannot Say	2	1	100
Total	**200**	**100**	

Source: Field Study

Availability of Facilities and Support Services

Availability of basic facilities and support services in the Sub Health Centres/Clinics as perceived by beneficiaries are presented in Table No.6.7. Basic facilities/needs include water, electricity, toilet facilities, examination bed, delivery bed, delivery equipment, landline telephone, B.P Apparatus, Weighing Scale, Sterilizer. All 200 sub-centres/clinics visited during the survey had toilets available. The availability of toilets in all the facilities surveyed indicates that basic sanitation infrastructure is in place, which is crucial for maintaining hygiene standards and ensuring the well-being of patients and healthcare staff. This positive result suggests that efforts have been made to provide this essential facility in the sub-centres, meeting a fundamental requirement for healthcare service delivery.

According to the survey results, a majority of respondents (83.5 percent) reported the presence of an independent electric connection in their respective Sub Centres. Conversely, the remaining 16.5 percent indicated that their Sub Centres relied on the power supply of the YMA Hall and Local Council House..73.5 of respondents also reported that there were separate water connection,26.5 percent informed that in the absence of separate water connection, other sources include-those bought by the employees (15.1), shared from the Local Church(9.4), shared from the Local Council water Connection (26.4), shared from YMA water Connection (18.9), neighbours and rain water (30.2), only 5 percent stated that their Sub Centre had a landline telephone connection.

Upon conducting field visits to individual sub-centres, it was determined that all the sub-centres/clinics visited had an operational examination table, 97 percent of respondents corroborated this, though only very few of them had delivery beds and delivery equipment (Table No.6.7).

All participants reported the presence of functional B.P. apparatus. While all respondents testified that there were weighing scales available,13.5 percent said the weighing scales were not in working conditions.56.5 percent of the respondents said their Sub Centres/Clinics had sterilizer instruments.

Table No.6.7

Availability of Facilities and Support Services

Particulars	**Frequency**	**Percent**	**Cumulative Percent**
Availability of Separate Electric supply			
No	33	16.5	16.5
Yes	167	83.5	100.0
Total	**200**	**100.0**	
Other Sources of Electric Supply			
Source	**Frequency**	**Percent**	**Cumulative Percent**
No comment	19	58	58
Shared from Local Council House	4	12	70
Shared from YMA House	5	15	85
Shares YMA Hall Electric Supply	5	15	100
Total	**33**	**100**	
Availability of Separate Water connection			
No	53	26.5	26.5
Yes	147	73.5	100.0
Total	**200**	**100.0**	
Other Sources of water supply			
Source	Frequency	Percent	Cumulative Percent
Bought by employees	8	15.1	15.1
Shared from local Church	5	9.4	24.5
Shared from Local Council connection	14	26.4	50.9
Neighbours and rain water	16	30.2	81.1
Shared from YMA Connection	10	18.9	100
Total	**53**	**100.0**	
Availability of Toilets			
Yes	200	100.0	100.0
Telephone/Mobile Connection Status			
No	190	95.0	95.0
Yes	10	5.0	100.0

Particulars	Frequency	Percent	Cumulative Percent
Total	**200**	**100.0**	
Separate Delivery Room			
Do Not Know	4	2.0	2.0
No	183	91.5	93.5
Yes	13	6.5	100.0
Total	**200**	**100.0**	
Availability of Delivery Beds and Instruments			
Do Not Know	13	6.5	6.5
No	174	87.0	93.5
Yes	13	6.5	100.0
Total	**200**	**100.0**	
Availability of BP Apparatus			
Yes	200	100.0	100.0
Whether BP Apparatus in Good Working Condition?			
Yes	200	100.0	100.0
Availability of Weighing Machine			
Yes	200	100.0	100.0
Whether Weighing machine is in good Working Condition			
No	27	13.5	13.5
Yes	173	86.5	100.0
Total	**200**	**100.0**	
Availability of Sterilizer Instrument			
Do Not Know	33	16.5	16.5
No	41	20.5	37.0
Sterilized by boiling	13	6.5	43.5
Yes	113	56.5	100.0
Total	**200**	**100.0**	
Availability of Examination Table			
Do Not Know	2	1.0	1.0
No	4	2.0	3.0
Yes	194	97.0	100.0
Total	**200**	**100.0**	

Source: Field Study

Availability and Status of Services

Availability of services in the Sub Centre was profiled under various indicators as shown in Table 6.8. Under Antenatal Services, all respondents (100 percent) agreed that all expectant mothers were registered regularly, 90.5 percent said that weight of all expectant mothers were checked, remaining 9.5 percent reported that weight were not checked because scale was not working.86.5 percent stated that height of all expectant mothers were checked, 94 percent said blood pressure of expectant mothers were regularly checked and 95 percent said that abdominal examinations was done for expectant mothers after the 5^{th} month of pregnancy. When questioned regarding the availability of Disposable Kit for delivery, only 8.5 persons said that all items of the kit were available, 23 percent said that some items of the kit were available, around half (51.5 percent) said none of the items were available, while 17 percent did not know about the availability or non-availability of the kit. Referral for complex instances of pregnancy was done at the Sub Centre level, according to 98 percent of respondents.

In respect of routine immunization services as per Government Schedule, all respondents (100 percent) replied in the affirmative (Table No.6.8).

The feedback from patients regarding the availability and condition of services are examined in the following manner (Table No 6.8):

1. **Routine Immunization:** Regarding the delivery of routine immunization services following the Government Schedule, every single respondent (100 percent) confirmed this without any exceptions. In other words, the entirety of the participants acknowledged and agreed to the implementation of routine immunization services as outlined by the Government Schedule.
2. **Vitamin A Supplements, IFA Tablets/Syrup, and Albendazole Tablets:** 92 percent of the respondents reported the availability and provision of these supplements and tablets by the Sub Centre. These are commonly used to address nutritional deficiencies and deworming.
3. **Treatment for Diarrhoea and Dehydration (ORS):** A majority of 77 percent of the participants reported that treatment for diarrhoea and dehydration (using Oral Rehydration Solution, ORS) was available at the Sub Centre. This indicates a positive accessibility to basic treatment for these conditions.

4. **Treatment for Minor Ailments (Fever, Cold, Cough):** A lower percentage, 42 percent of the respondents, indicated the availability of treatment for minor, everyday ailments such as fever, cold, and cough at the Sub Centre or Clinic. This suggests that the Sub Centre might have limitations in providing treatment for these common health issues.
5. **Peripheral Blood Smear for Malaria Detection:** The survey results showed that 94.5 percent of respondents reported the availability of the facility for taking a peripheral blood smear to detect malaria at the Sub Centre. This indicates a good accessibility for malaria testing.
6. **Urine Testing:** Only 36.5 percent of the respondents reported the availability of urine testing at the Sub Centre. This might suggest that urine testing facilities are less common compared to other tests like the peripheral blood smear for malaria.
7. **Contraceptive Services:** The survey found that 93 percent of respondents reported that contraceptive services, such as the insertion of Copper-T, distribution of oral contraceptive pills, or condoms, were provided by the Sub Centre. This indicates a relatively high availability of contraceptive services.
8. **Malaria Treatment Availability:** Patients confirmed the availability of Malaria treatment, with 94.5 percent acknowledging its accessibility. This shows a positive aspect of the healthcare provision of malaria treatment.
9. **TB and Leprosy Treatment Availability:** Only 29 percent of patients reported the availability of TB treatment, while 89 percent stated that treatment for Leprosy was not accessible. This indicates a notable lack of availability for TB and Leprosy treatment, which requires attention and improvement in healthcare accessibility for these conditions.
10. **Facilities for Treatment and Dressing**: Around 67.5 percent of patients noted the availability of facilities for the treatment and dressing of wounds and injuries. This suggests that a significant proportion of patients have access to these facilities. Approximately 34 percent of patients indicated that all items in the first aid kit were available, while 52.5 percent mentioned that only some items were accessible. These highlights potential shortcomings in maintaining

well-stocked supplies, requiring a focus on ensuring all necessary items are consistently accessible.

11. **Quality of Wound Dressing**: When questioned about the quality of wound dressing at the Sub Centre, 50.5 percent of patients confirmed proper treatment and dressing, 28.5 percent reported it happening occasionally, 3.5 percent stated perfunctory treatment and 10.5percent claimed the treatment was not administered. Additionally, 7 percent were uncertain. This diverse range of responses indicates the need to address occasional and perfunctory treatment instances, ensuring consistent and effective wound care. The presence of patients who reported No treatment or uncertainty highlights potential areas for improvement in wound care services.

Table.No.6.8
Availability of Services

Services	Frequency	Percent	Cumulative Percent
1. Antenatal Care Services			
1.1 Whether Expectant Mothers Registered Regularly			
Yes	200	100.0	100.0
1.2 Whether Weight of all Expectant Mothers Checked			
Scale is not working	19	9.5	9.5
Yes	181	90.5	100.0
Total	**200**	**100.0**	
1.3 Whether Height of all Expectant Mothers being Measured			
Do Not Know	7	3.5	3.5
No	11	5.5	9.0
Sometimes	9	4.5	13.5
Yes	173	86.5	100.0
Total	**200**	**100.0**	
1.4 Whether Blood Pressure of Expectant Mothers being Checked			
Do Not Know	2	1.0	1.0
Sometimes	10	5.0	6.0
Yes	188	94.0	100.0
Total	**200**	**100.0**	
1.5 Whether Abdominal Examination done for Expectant Mothers after the 5th Month			
Do Not Know	3	1.5	1.5
No	7	3.5	5.0

Services	Frequency	Percent	Cumulative Percent
Yes	190	95.0	100.0
Total	**200**	**100.0**	
1.6 Availability of Vitamins A,IFA Tablets, Calcium, TT Injections, Albendazole			
Do Not Know	3	1.5	1.5
No	1	.5	2.0
Sometimes	12	6.0	8.0
Yes	184	92.0	100.0
Total	**200**	**100.0**	
1.7 Disposable Kit for Delivery			
All Items Available	17	8.5	8.5
All Items Not Available	103	51.5	60
Some Items Available	46	23.0	83
Do Not Know	34	17.0	100
Total	**200**	**100.0**	
1.8 Whether Referral of Complicated Cases of Pregnancy is Done			
Do Not Know	4	2.0	2.0
Yes	196	98.0	100.0
Total	200	100.0	
2. Whether Immunization given on time/as per Government Schedule			
Yes	200	100.0	100.0
3. Availability of Vitamins A and Albendazole			
Do Not Know	3	1.5	1.5
No	1	.5	2.0
Sometimes	12	6.0	8.0
Yes	184	92.0	100.0
Total	**200**	**100.0**	
4. Availability of Treatment for Diarrhoea and Dehydration			
Do Not Know	14	7.0	7.0
No	22	11.0	18.0
Sometimes	10	5.0	23.0
Yes	154	77.0	100.0
Total	**200**	**100.0**	
5. Facility for Taking Peripheral Blood Smear			
Do Not Know	2	1.0	1.0
No	9	4.5	5.5

Services	Frequency	Percent	Cumulative Percent
Yes	189	94.5	100.0
Total	**200**	**100.0**	
6. Availability of Urine Test			
Do Not Know	21	10.5	10.5
No	97	48.5	59.0
Sometimes	9	4.5	63.5
Yes	73	36.5	100.0
Total	**200**	**100.0**	
7. Whether Contraceptives/Condoms are Available			
Do Not Know	1	.5	.5
No	10	5.0	5.5
Sometimes	3	1.5	7.0
Yes	**186**	**93.0**	**100.0**
Total	**200**	**100.0**	
8. Treatment for day today's Simple Illnesses			
Cannot Say	15	7.5	7.5
No	49	24.5	32.0
Sometimes	52	26.0	58.0
Yes	84	42.0	100.0
Total	**200**	**100.0**	
9. Availability of Malaria Treatment			
Do Not Know	8	4.0	4.0
Sometimes	3	1.5	5.5
Yes	189	94.5	100.0
Total	**200**	**100.0**	
10. Availability of TB Treatment			
Do Not Know	13	6.5	6.5
No	117	58.5	65.0
Sometimes	12	6.0	71.0
Yes	58	29.0	100.0
Total	**200**	**100.0**	
11. Availability of Leprosy Treatment			
Do Not Know	26	13.0	13.0
No	168	84.0	97.0
Sometimes	1	.5	97.5

Services	Frequency	Percent	Cumulative Percent
Yes	5	2.5	100.0
Total	**200**	**100.0**	
12. Availability of Medicines and Others			
Do Not Know	14	7.0	7.0
No	10	5.0	12.0
Sometimes	41	20.5	32.5
Yes	135	67.5	100.0
Total	**200**	**100.0**	
13.Availability of First Aid Kit for Dressing of Wounds			
All Items Available	68	34.0	34
All Items Not Available	14	7.0	41
Some Items Available	105	52.5	93.5
Do Not Know	13	6.5	100
Total	**200**	**100.0**	
14. Is Dressing of wounds done properly?			
Do Not Know	14	7.0	7.0
No	21	10.5	17.5
Not properly done	7	3.5	21.0
Sometimes	57	28.5	49.5
Yes	101	50.5	100.0
Total	**200**	**100.0**	

Source: Field Study

Services Relating to Covid 19

COVID-19, a communicable infection attributable to the SARS-CoV-2 virus, COVID-19 is also commonly denoted as the coronavirus or simply COVID. The disease, which initially manifested in December 2019, first surfaced in Wuhan, China, and has subsequently disseminated across the globe, resulting in a worldwide pandemic. Despite the World Health Organization's decision to terminate its declaration of COVID-19 as a global health emergency on May 5th, 2023, the disease remains classified as a pandemic.

On January 16, 2021, India initiated the administration of COVID-19 vaccines, commencing with the central government's initiative to provide free vaccinations specifically designated for individuals aged 45 years and older, exclusively targeting senior citizens. With a view to intensifying the immunisation campaign, a minimum

of 24 Indian states have declared their intention to administer free-of-charge vaccinations to their populace. While certain states have implemented policies that provide free access to the vaccine for all individuals, others have specified that it will only be available at no cost to those within the age range of 18 to 45. The vaccination campaign aimed at combating SARS-CoV-2 has been extended to encompass individuals aged 18 and above, effective May 1st, 2021[310].

Beneficiaries were asked about COVID services carried out in the Sub Centres, including the testing, vaccination, and treatment as well as the costs involved. 64percent of respondents reported the availability of Rapid Antigen Tests (RAT) for Covid-19 at the Sub Centre, while 51percent of respondents mentioned that Rapid Antigen Tests (RAT) were administered directly at the Sub Centre, 29percent of participants reported that the test was provided without any charge,33.5 percent said the test was not free, the rest did not know or could not say. When asked about Vaccination for Covid,98 percent said vaccines were given in the Centre itself and 91 percent said vaccination was also done by the health officials of their Sub Centre in other public places,14.5 percent said that fees for vaccination were taken although they could not say how much.86 percent said that treatment even for mild cases of Covid were not carried out by the Sub Centre though 61.5 percent said that referral of covid patients were done by the health officials (Refer to Table.No.6.9) .

Table. No.6.9
Covid Services

Particulars	**Frequency**	**Percent**	**Cumulative**
RAT Test Kits for Covid-19 Available at the Sub Centre?			
Do Not Know	19	9.5	9.5
No	53	26.5	36.0
Yes	128	64.0	100.0
Total	**200**	**100.0**	
Are RAT Tests done for Covid-19 at the Sub Centre?			
Do Not Know	23	11.5	11.5
No	75	37.5	49.0
Yes	102	51.0	100.0
Total	**200**	**100.0**	

[310] Ibid

Particulars	Frequency	Percent	Cumulative
Are RAT tests free of cost?			
Cannot Say	19	9.5	9.5
N.A(Not available)	56	28.0	37.5
No	67	33.5	71.0
Yes	58	29.0	100.0
Total	**200**	**100.0**	
Are Covid Vaccination done at the Sub-Centre?			
No	4	2.0	2.0
Yes	196	98.0	100.0
Total	**200**	**100.0**	
Are Covid Vaccination also done by the health workers of the Sub centres Not in the sub Centres but in other public places?			
Do Not Know	17	8.5	8.5
No	1	.5	9.0
Yes	182	91.0	100.0
Total	**200**	**100.0**	
If Vaccination done, are any fees taken?			
No	171	85.5	85.5
Yes	29	14.5	100.0
Total	**200**	**100.0**	
If fees are taken, how much?			
NA	171	85.5	85.5
Do Not Know	29	14.5	100.0
Total	**200**	**100.0**	
Are treatment for mild and moderate cases of Covid provided at the Sub-Centre?			
Do Not Know	23	11.5	11.5
No	172	86.0	97.5
Yes	5	2.5	100.0
Total	**200**	**100.0**	
Are medicines for mild cases of Covid provided free of cost at the Sub-Centre ??			
Do Not Know	22	11.0	11.0
No	178	89.0	100.0
Total	**200**	**100.0**	
Are referral for patients with serious cases of Covid done by the Sub-Centre ?			
Do Not Know	23	11.5	11.5
No	54	27.0	38.5

Particulars	Frequency	Percent	Cumulative
Yes	123	61.5	100.0
Total	**200**	**100.0**	
Arrangement of vehicle for referring a seriously ill Covid patient for further Treatment?			
Do Not Know	23	11.5	11.5
No	177	88.5	100.0
Total	**200**	**100.0**	

Source: Field Study

Status of Non-Communicable Diseases(NCD) Services

Persistent diseases, commonly known as Non-Communicable diseases (NCDs), are characterized by their non-transmissible nature between individuals. The prevalent non-communicable diseases include Chronic respiratory disorders, malignancies, cardiovascular problems, strokes, and diabetes. Long-term respiratory conditions comprise chronic obstructive pulmonary disease and asthma. Persistent illnesses, while indiscriminate in their potential impact on individuals across gender and socioeconomic strata, may disproportionately afflict adults who engage in unhealthy behaviours. Tobacco and alcohol usage are recognized as significant contributing factors. A significant apprehension regarding Non-Communicable Diseases pertains to their impact on individuals during their productive lifespan. Non-transmissible or NCDs, are illnesses that cannot be spread by contagious means and considerably increase the risk of premature mortality[311].

Sixty percent of all fatalities in India are caused by NCDs[312]. Empirical evidence and research-based observations from both domestic and international contexts have demonstrated that non-transmittable disease prevalence can be decreased by efficacious preventative interventions[313]. The scope of our healthcare system extends beyond the mere identification and treatment of diseases, encompassing the crucial domains of prevention and health promotion.

The government has established the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases, and Stroke (NPCDCS). Its

[311] Module for Multi-Purpose Workers (MPW) - Female/Male on Prevention, Screening and Control of Common Non-Communicable Diseases, NRHM

[312] Burden of NCDs and their risk factors in India. Available at- http://www.searo.who.int/india/topics/Non-communicable_diseases/ncd_situation_global_report_ncds_2014.pdf

[313] Ibid

implementation is currently being carried out via the NHM. A crucial element of this programme involves the comprehensive evaluation of all individuals who sought medical attention for hypertension, diabetes, and specific types of cancer at healthcare facilities. The practice of conducting screenings in a non-systematic manner, taking advantage of available opportunities, is commonly referred to as Opportunistic Screening. The government has expressed its intention to expand the scope of the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) to include the implementation of screening measures for asymptomatic individuals aged 30 years and above, whether in the community or at a nearby healthcare facility. This screening method is commonly referred to as population-based screening.

Implementation of NCD and NPCDCS at the Sub Health Centre Level

The following are the activities that are being carried out at Sub-centres as part of NCD and NPCDCS[314] :

• Activities promoting health that encourage alterations in one's way of life

• Community engagement efforts, including population-based screening for major non-communicable diseases (begun in one hundred districts in the first phase).

• ASHA, ANM, and Health Workers are responsible for screening people over the age of 30 for non-transmittable disease risk factors, diabetes mellitus (DM), hypertension and cancers that are prevalent.

• Suspected cases are referred to PHC/CHC for further treatment

• The procedure of recording and reporting data, which entails the fulfilment of the Family Folder at the community level, as well as the maintenance of the Register at the SC/PHC. The Register contains comprehensive information regarding cases that have been suspected, referred, or followed up on.

• Reporting of data on a monthly basis:

1. Form 1: from Sub Centre to PHC
2. Form 2: from PHC to NCD Clinic at CHC

The status of NCD Services provided at the Sub Centre was profiled. Beneficiaries were asked whether NCD Screening was done in their respective Sub

[314] Overview of NCD & NPCDCS Programme, NHM

Centres,88 percent answered in the affirmative while the remaining 12 percent did not know. When asked who were responsible for giving out NCD Services,73 percent said all employees in the Sub Centre were responsible,6 percent said the HWOs,2 percent said the Health Workers and 19 percent did not know. Beneficiaries were then asked if NCD Screening was free or not,78 percent said Yes,1.5 percent said No and 20.5 percent did not know. (Table.No.6.10).

Table.No.6.10

NCD Services

Services	**Frequency**	**Percent**	**Cumulative**
Are NCD Screening done at the Sub-centre?			
Do Not Know	24	12.0	12.0
Yes	176	88.0	100.0
Total	**200**	**100.0**	
Who gives NCD service?			
all employees	146	73.0	73.0
Do Not Know	38	19.0	92.0
Health workers	4	2.0	94.0
HWO	12	6.0	100.0
Total	**200**	**100.0**	
Is NCD Screening free or Not?			
Do Not Know	41	20.5	20.5
No	3	1.5	22.0
Yes	156	78.0	100.0
Total	**200**	**100.0**	

Source: Field Study

Doctor's Visit Status

Beneficiaries were asked about doctor's visit to the Sub Centres in the last three months, majority (70 percent) said that a doctor has not visited in the past three months. The rest were mixed responses - once, twice, thrice, four times, five times, six times, on allotted days, some did not know but could recall that doctors had indeed visited, some simply did not know. When asked if a doctor had visited the Sub Centre at all, 35.5 percent responded in the negative,36.5 percent did not know while 22.5 said Yes,7.5 percent said that doctors visited Sometimes. When asked about doctor's visit within a year, there were mixed responses. When queried regarding the extent to

which the recipients were informed about the physician's visit schedule; 17.5 percent of those surveyed confirmed receiving such information, while 10 percent denied being notified. The remaining 42 percent of the participants indicated uncertainty regarding this issue. (Table.6.11)

Table No.6.11
Status of Doctor's Visit to Sub Centres

Doctor's visit in the last 3 months	**Frequency**	**Percent**	**Cummulative Percent**
Twice	1	0.5	0.5
Thrice	1	0.5	1
4 times	1	0.5	1.5
5 times	1	0.5	2
6 times	1	0.5	2.5
Do not know	42	21	23.5
Do not know but doctor sometimes visits	1	0.5	24
No visit	140	70	94
No visit from outside, although MO (AYUSH) works in the centre	2	1	95
On alloted visit days	2	1	96
Once	8	4	100
Total	**200**	**100**	
Does the Physician ever visit the Sub-Centre at any point?			
Do not know	69	34.5	34.5
No	71	35.5	70
Sometimes	15	7.5	77.5
Yes	45	22.5	100
Total	**200**	**100**	
If yes, how many Doctor visits in a year?			
Once	13	6.5	6.5
Maybe once	1	0.5	64.5
Around 3 times	2	1	10
Around 4 times	1	0.5	10.5
20-24 times	5	2.5	9
Cannot say	107	53.5	64
N.A	71	35.5	100
Total	**200**	**100**	
Are Residents Made Aware of Doctor's Visit?			
Do not Know	84	42	42
N. A	71	35.5	77.5
No	10	5	82.5

Yes	35	17.5	100
Total	**200**	**100**	

Source: Field Survey

Standard of Services

Standard and quality of services in the Sub Centre were assessed using indicators such as length of wait time for getting treatment, seating arrangements, cost of medical consultation, patience and communication, kindness of officials, referral of patients and the provision of Citizens Charter in the local language. When queried about the duration of the waiting period for receiving treatment or services from the Sub Centre, 73 percent of the respondents reported a waiting time of 0-10 minutes, while 17.5 percent reported a waiting time of 10-20 minutes, and 5 percent reported a waiting time of 20-30 minutes. Regarding the presence of comfortable seating arrangements, 96 percent of respondents affirmed their existence, while only 3.5 percent provided a negative response. The findings suggest that a considerable majority of participants, specifically 99.5 percent, reported that they did not have to provide any monetary compensation for the services provided by the Sub Centre. Additionally, 96 percent of participants reported that the health officials communicated their medical diagnoses in a comprehensible manner, characterized by patience and empathy. Ninety-six percent of the participants reported that the health officials demonstrated kindness, courtesy, attentiveness, and support during their interactions. The survey results demonstrate that a substantial majority of respondents, specifically 93.5 percent, reported receiving free medication from the Centre, provided it was available. When queried about the location of referral, 89 percent of participants reported being directed to higher level healthcare facilities, including Primary Health Centres and District Hospitals, based on the nature of their illness. According to the survey results, 73 percent of the participants reported the presence of a Citizen Charter in the local language at the Sub Centre. (Table No. 6.12).

Table.No.6.12

Status/Quality of Services

Services Status	Frequency	Percent	Cumulative Percent
How long do you have to wait to get treatment?			
0-10 minutes	146	73.0	73.0
10-20 minutes	35	17.5	90.5

Services Status	Frequency	Percent	Cumulative Percent
20-30 minutes	10	5.0	95.5
Cannot Say	9	4.5	100.0
Total	**200**	**100.0**	
Are there comfortable seating arrangements while waiting?			
Cannot Say	1	.5	.5
No	7	3.5	4.0
Yes	192	96.0	100.0
Total	**200**	**100.0**	
Do patients have to pay for medical consultations in the Sub-Centre?			
No	199	99.5	99.5
Sometimes	1	.5	100.0
Total	**200**	**100.0**	
Do healthcare professionals effectively convey and clarify the medical status of their patients, while demonstrating patience and empathy, using language that is comprehensible to the patient?			
Cannot Say	8	4.0	4.0
Yes	192	96.0	100.0
Total	**200**	**100.0**	
Do the officials exhibit kindness, courtesy, attentiveness, and support towards patients to the best of their ability?			
Cannot Say	8	4.0	4.0
Yes	192	96.0	100.0
Total	**200**	**100.0**	
Do patients have to pay for medicine in the Sub-Centre?			
Cannot Say	10	5.0	5.0
No	187	93.5	98.5
Sometimes	3	1.5	100.0
Total	**200**	**100.0**	
Have patients been referred to another healthcare centre based on the nature of their illness?			
Do Not Know	17	8.5	8.5
No	4	2.0	10.5
Yes	179	89.5	100.0
Total	**200**	**100.0**	
In the event of a referral to another healthcare facility, please provide specific details regarding the destination.			

Services Status	Frequency	Percent	Cumulative Percent
District Hospital	171	85.5	85.5
Do Not Know	3	1.5	87.0
PHC	1	.5	87.5
PHC,District Hospital	25	12.5	100.0
Total	**200**	**100.0**	
Arrangement of vehicle for referral done by the sub centre?			
Do Not Know	27	13.5	13.5
No	173	86.5	100.0
Total	**200**	**100.0**	
Is there a Citizens' Charter in the local language?			
Do Not Know	38	19.0	19.0
No	16	8.0	27.0
Yes	146	73.0	100.0
Total	**200**	**100.0**	

Source: Field Study

Role of Accredited Social Health Activist (ASHA)

On April 12th, 2005, The National Rural Health Mission (NRHM) was initiated by the Indian government to address the healthcare needs of the rural population. The primary approach involved strengthening the infrastructure and human resources of the existing Primary Health Centres and Community Health Centres in order to achieve diverse health goals, including the mitigation of the rates of newborn and maternal mortality, as well as the prevalence of communicable ailments. Sub Centres represent a healthcare tier situated at the periphery, which is designed to provide medical services to a population of approximately 5000 individuals in the plain regions and 3000 individuals in the hilly regions. However, it is Noteworthy that these centres are capable of effectively catering to a significantly larger population[315]. Due to the largepopulation to be catered as well as the fact that only about 50 percent of MultipurposeHealth Workers (MPW) (M) are available, the Auxiliary Nurse Midwife (ANM) is heavily overburdened with work, which has a detrimental influence on both urban and rural outreach services. As a result, a fresh

[315] NHM Guidelines on ASHA, https://nhm.gov.in/images/pdf/communitisation/task-group-reports/guidelines-on-asha.pdf , https://nhm.gov.in/images/pdf/NUHM/Guidelines_for_Asha_and_MAS_in_Urban_Context.pdf viewed on 07.03.23

group of community-centred female health volunteers, recognized as Accredited Social Health Activists (ASHA), has been set up to bridge this disparity. Their role involves offering support and easing the responsibilities of the Auxiliary Nurse Midwife (ANM). These Accredited Social Health Activists (ASHAs) operate in both rural and urban areas as part of the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM) respectively. While health challenges faced by urban and rural areas may vary due to differences in community composition and needs, both settings utilize the urban ASHA in a similar manner to the rural ASHA. The urban ASHA serves as a crucial intermediary between impoverished individuals and the available health services. As of June 2022, the number of Accredited Social Health Activists (ASHAs) exceeds 1,052,000. The ASHA programme has been implemented across all states and union territories in India, excluding the state of Goa[316].

Essential elements and functions of ASHA [317] :

1. In rural regions, for every 1000 people, it is advised that there be one Accredited Social Health Activist (ASHA). However, in tribal, mountainous, and arid regions, this standard may be adjusted to one ASHA per settlement, based on workload.

   In cities and urban regions, it is suggested that there may exists a ratio of one Accredited Social Health Activist (ASHA) for every 1000-2500 individuals in the population. Additionally, a Mahila Arogya Samiti (MAS), which is constituted by women residing in a group of households within a specific slum area, is established at a scale of 50-100 households, corresponding to a population of 250-500.This postulation posits that each ASHA will bear the onus of overseeing a range of two to five MAS. In the event of scattered habitation patterns among marginalized communities, the process of identifying "slum/vulnerable clusters" for the purpose of ASHA selection may be

[316] https://vikaspedia.in/health/nrhm/national-health-mission/initiatives-for-community-participation-under-nhm/accredited-social-health-activist-(asha)#:~:text=Inpercent20urbanpercent20areas&text=Shepercent20shouldpercent20bepercent20preferablypercent20'Married,reachpercent20outpercent20topercent20thepercent20community.

[317] Official Website of NHM, Ministry of Health and Family Welfare, Government of India.

conducted with a focus on smaller population sizes. In urban localities characterized by a populace not exceeding 50,000 individuals, Accredited Social Health Activists (ASHAs) shall be designated in a manner akin to their selection process in rural regions.

2. Asha, a denizen of the village, is a woman who falls within the age bracket of 25 to 45 years and is categorized as either married, widowed, or divorced. In urban locales, it is imperative that an Accredited Social Health Activist (ASHA) be a female denizen hailing from the "slum/vulnerable clusters" and align with the specific vulnerable demographic identified by the City/District Health Society for the purpose of ASHA selection.
3. It is required that the individual in question possesses literacy skills and has attained at least a tenth-grade level of education. However, in the event that a suitable candidate meeting these criteria cannot be found, the educational requirement may be adjusted.
4. ASHA selection involves a meticulous process that entails the participation of diverse community groups, self-help groups, Anganwadi Institutions, the Block Nodal officer, District Nodal officer, local health committees, and the local bodies. In urban areas, local community-based organizations or those representing the vulnerable sections, Mahila Arogya Samitis, where such women's group exists, are to be consulted.
5. Since the role of ASHA entails continuous capacity building, ASHA goes through several training sessions to get the requisite expertise, self-assurance, and abilities.
6. ASHAs are provided with incentives considering their accomplishments in promoting universal immunization, referral and escort services for Reproductive and Child Health (RCH) and other healthcare programmes, and construction of household toilets.
7. ASHA are provided with a drug-kit designed to deliver essential healthcare services to the best of her ability.

8. The ASHA functions as the main touchpoint for individuals from marginalized communities, specifically women and children, who encounter challenges in obtaining healthcare services.
9. ASHA disseminates knowledge to the public regarding factors that influence health outcomes such as nutrition, basic sanitation & hygienic practices, healthy living and working conditions, information on existing health services and the need for timely utilisation of health & family welfare services.
10. ASHAs provide guidance to women regarding birth preparedness and the significance of safe delivery, breast-feeding and complementary feeding, immunization, contraception, and prevention of common infections including Reproductive Tract Infection/Sexually Transmitted Infections (RTIs/STIs) and care of the young child.
11. ASHA serves in the capacity of a repository for necessary provisions, and the distribution of crucial items like Iron Folic Acid Tablet (IFA), Disposable Delivery Kits (DDK), Oral Rehydration Therapy (ORS), chloroquine, oral pills, and condoms to all habitations.
12. It is acknowledged at the local level that the effective functioning of ASHA is contingent upon receiving sufficient institutional support of women committees encompassing The comprehensive support for Accredited Social Health Activists (ASHA) includes the involvement of groups of self-help or women's general well-being groups, the establishment of a sanitation and healthcare committee within the local government, the engagement of peripheral health workers such as Auxiliary Nurse Midwives (ANMs) and Anganwadi workers, as well as the provision of ASHA trainers and regular in-service training. These various components significantly contribute to the overall support system for ASHA.

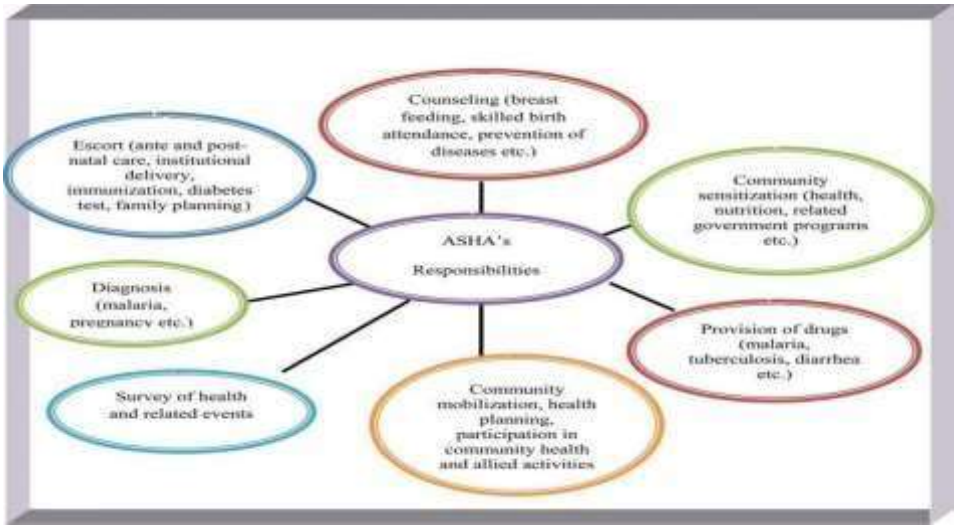
Role and Duties of ASHAs

The ASHA's main duty is to offer treatment at the community level and work as a health advocate in the neighborhood to raise public knowledge of health and its

social determinants. The ASHA is also in charge of encouraging community participation in local health planning and improving the accountability of already-provided medical services. The above involves a combination of responsibilities, namely facilitating the ease of entry to healthcare services, and disseminating information regarding healthcare privileges, particularly for the indigent and marginalized. ASHAs offer a basic level of therapeutic treatment that is appropriate and practical for her level of expertise and training. Additionally, she promptly refers patients to other healthcare professionals when necessary.

Figure No :6.1

Asha Responsibilities



Responsibilities of ASHAs:

1. To educate the population about health determinants and entitlements such as diet, fundamental hygiene habits, wholesome living and working conditions, access to health services, and their usage.
2. To provide women with information on prenatal care, safe delivery, nursing and additional nutrition, vaccination, birth control, preventing prevalent illnesses including RTIs/STIs, young childcare facilities, and domestic and sexual abuse.
3. To make it easier for everyone to access primary health services
4. Together with the Village Health & Sanitation Committee of the Local Government, develop a rural ASHA strategy. Urban ASHAs and the Mahila Arogya Samiti will work together to promote the committee's convergence of action on socioeconomic

factors that influence health and increase disadvantaged groups' access to public services.

5. To arrange for the escort and accompaniment of pregnant women and children in need of treatment or admission to the nearest pre-designated medical institution (PHC/CHC/FRU).

6. To offer primary health care for mild illnesses such as diarrhoea, fevers, infant care, blood pressure, urine sugar, and first aid, along with the supervision of Directly Observed Treatment Short-course (DOTS) as part of the Revised National Tuberculosis Control Programme.

7. ASHAs are given medicine kits to keep essential supplies including medication for oral rehydration (ORS), iron folic acid tablets (IFA), chloroquine, disposable delivery kits (DDK), oral medications & contraception, etc. The kit's contents will be decided by the expert/technical advisory council of the Indian government.

8. The state has the ability to enhance the provider function of ASHAs. States may provide tier-specific training in areas such as mental health, palliative care, geriatric care, NCD screening, and developmental disability, among others.

9. To inform the Sub-Centres/Primary Health Centre on local births and deaths and unique health issues/disease outbreaks.

10. To support the Total Sanitation Campaign residential toilet building.

11. ASHA are given training to upgrade her skills to fulfil these duties.

ASHAs list households, married women of reproductive age, pregnant women, and children in their assigned region. They get to know the neighborhood and its health requirements. After mapping families, they will provide basic health care.

ASHA is an honorary volunteer but receives compensation for training, monthly evaluations, and other meetings. She also receives national health programme incentives. She earns a small amount through social marketing of condoms, contraceptive pills, sanitary napkins, etc. ASHAs receive at least Rs.2000 per month as assured income (since October 2018) in addition to Central/State-approved task-based incentives.

The National Urban Health Mission (NUHM) has successfully selected 68,931 ASHAs making up 88 percent of the intended goal of 77,958 ASHAs nationwide[318]. Regarding the population-based selection, most states have allocated one ASHA for a population of 1,000 or fewer individuals. According to the National Commission on Population projection for 2020-21, the current population per ASHA under the NRHM stands at 979, which is the national average. The population per Accredited Social Health Activist (ASHA) varies across different regions, with the lowest being 153 in the Union Territory of Lakshadweep and the highest being 1,241 per ASHA in Bihar. Among the Northeastern states, Arunachal Pradesh exhibits the lowest mean population per Accredited Social Health Activist (ASHA) at 285, while the corresponding figure for Assam is as high as 951. The average population of five states in the Northeast region, namely Tripura, Meghalaya, Mizoram, Manipur, and Sikkim, is below 600, with respective figures of 360, 397, 549, 551, and 583. The state of Nagaland exhibits an average of 656 individuals per Accredited Social Health Activist (ASHA) in terms of population distribution. The states of Nagaland, Mizoram, and Assam have effectively reached their goals of selecting all Accredited Social Health Activists (ASHAs) as per the predetermined target.

The job of ASHA in RCH is especially admirable since she serves as a confidante and friend to community women while giving them counselling on fundamental health concerns pertaining to women's and child care. ASHA is a significant player in the community's health activism encouraging community people to participate in community healthcare strategy while fostering awareness of health and the impacts of society on it. She would also promote accountability and encourage the use of current medical services. As a proponent of healthy living, she will quickly refer people and provide basic curative care as needed and feasible at her level of ability. She serves as a link between underserved areas and healthcare institutions including district hospitals, sub-centres, and primary health centres.

[318] Annual ASHA Update 20-21,National Health Systems Resource Centre. https://nhsrcindia.org/sites/default/files/2022s07/Annualpercent20ASHApercent20Updatepercent2020 20-21.pdf

Table No.6.13

Status of ASHA Services

ASHA Services	Frequency	Percent	Cumulative Percent
Are there ASHA (Accredited Social Health Activist) in the locality ?			
Do Not Know	12	6.0	6.0
Yes	188	94.0	100.0
Total	**200**	**100.0**	
Do ASHAs accompany expectant mothers for delivery to hospitals?			
Do Not Know	46	23.0	23.0
No	25	12.5	35.5
Sometimes	23	11.5	47.0
Yes	106	53.0	100.0
Total	**200**	**100.0**	
Are ASHAs given proper training?			
Do Not Know	37	18.5	18.5
Yes	163	81.5	100.0
Total	**200**	**100.0**	
Does the PHC/Sub-Centre provide free medicines through ASHA?			
Do Not Know	20	10.0	10.0
No	4	2.0	12.0
Sometimes	3	1.5	13.5
Yes	173	86.5	100.0
Total	**200**	**100.0**	

Source: Field Survey

When beneficiaries were surveyed, it was discovered that 94 percent of beneficiaries gave positive answers when asked whether there were ASHAs in their particular communities. The remaining 6 percent were found to be uninformed on the subject. ASHAs, which have been chosen within community members and given the appropriate training to function as a bridge between rural people and primary health centres, provide assistance for the operational operations of Sub Centres/Clinics. The achievement of national health goals is crucially dependent on ASHAs. According to the survey results, 53 percent of the beneficiaries reported that ASHAs offered accompaniment during hospital deliveries. 11.5 percent of the respondents stated that ASHAs occasionally provided accompaniment, while 23 percent were uncertain about

this matter. Additionally, 12.5 percent of the participants reported that ASHAs were Not accessible for accompaniment. Regarding the inquiry pertaining to whether ASHAs received training for their job responsibilities, 81.5 percent of respondents affirmed that they had, while the remaining individuals were uncertain. When queried about the provision of medicines through ASHA, the majority of respondents (86.5 percent) affirmed that they were indeed supplied with medicines. A small proportion (1.5 percent) reported occasional provision, while a minority (2 percent) responded negatively. A further 10 per cent of participants were uncertain about the matter. (Table No. 6.13).

Different Aspects and Levels of Satisfaction

Patients' satisfaction stands as the paramount factor influencing health outcomes and healthcare quality. When evaluating the effectiveness of healthcare system services, patients possess the most informed perspective. This is attributed to the fact that patients possess a unique and informed perspective when it comes to assessing the effectiveness of healthcare system services. Their firsthand experiences, viewpoints, and feedback are invaluable in identifying areas for improvement, enhancing service delivery, and ultimately shaping the quality of care provided. Patients are at the heart of the healthcare system, and their experiences can offer unparalleled insights into the strengths and weaknesses of the services they receive. Their feedback can shed light on various dimensions of healthcare, such as communication with healthcare providers, waiting times, ease of access, quality of treatment, and overall patient-provider interaction. The research conducted a survey among patients, aiming to measure their contentment with the operational efficiency and services of Sub Centres, employing a custom-designed Beneficiaries' Satisfaction Index (BSI).

The Beneficiaries' Satisfaction Index utilized a set of six questions, where beneficiaries were requested to evaluate their satisfaction across six distinct aspects of healthcare delivery. Each question was evaluated on an ordinal scale consisting of a five-point scale: "Very dissatisfied," "somewhat dissatisfied," "acceptable satisfaction", "somewhat satisfied," and "very satisfied." These options were then converted into numerical scores, spanning from 0 to 100, where 0 indicated the lowest level of satisfaction and100 indicated the highest.

The BSI was then calculated using the following formula:

$$BSI = \frac{\{(\frac{Question\ mean\ value}{6}) - 1\}}{5} * 100$$

Where BSI =Beneficiaries Satisfaction Index

On the basis of the formula and the fact that the score of the BSI can range anywhere from 0 to 100, the score ranges are broken down as follows:

80-100: Very Satisfied

70-79: Somewhat Satisfied

60-69: Acceptable Satisfaction

50-59: Somewhat Dissatisfied

0-49: Very Dissatisfied

Table No.6.14
Beneficiaries Satisfaction Level

Reasons behind satisfaction	**Very Satisfied**	**Somewhat Satisfied**	**Acceptable Satisfaction**	**Somewhat Dissatisfied**	**Very Dissatisfied**
Good Building	30	106	44	15	5
Cleanliness	60	109	19	8	4
Staff Attitude	121	57	14	4	4
Technical competencies of staff	97	86	9	4	4
Availability and Standard of Medicine	88	67	30	7	8
Equipment	44	94	51	7	4
Beneficiaries Satisfaction Index	6.16				

Source: Field Study

Table 6.14 presents a comprehensive assessment of responses obtained from 200 beneficiaries. The aim was to gauge their satisfaction levels across vital aspects of healthcare delivery.

Reasons behind satisfaction: Each entry in Table 6.14 corresponds to a significant factor influencing patient satisfaction, encompassing "Good Building," "Cleanliness,"

"Staff Attitude," "Technical Competencies of Staff," "Availability and Standard of Medicine," and "Availability and Standard of Equipment."

Positive Response in Staff Attitude: A considerable number of respondents (121 out of 200) expressed being "Very Satisfied" with the staff's attitude, and an additional 57 respondents indicated they were "Somewhat Satisfied." This combined response highlights a commendable level of satisfaction with the healthcare staff's demeanour.

Confidence in Technical Competencies of Staff: Among the responses, 97 beneficiaries reported being "Very Satisfied," and 86 respondents stated they were "Somewhat Satisfied" with the technical proficiency of the healthcare team. This distribution signifies a high level of confidence in the staff's competencies.

Consideration for Availability and Standard of Medicine: While a significant number of beneficiaries (155) were satisfied to varying degrees, with 88 being "Very Satisfied" and 67 being "Somewhat Satisfied,"30 were “Acceptable Satisfaction”, 7 were "Somewhat Dissatisfied" and 8 were "Very Dissatisfied." This highlights the need to address concerns about medicine availability and quality to ensure overall satisfaction.

Significant Approval for Cleanliness: Noteworthy satisfaction was registered for cleanliness, with 60 respondents indicating "Very Satisfied," and a substantial 109 respondents expressing "Somewhat Satisfied." This highlights the commendable standards of Cleanliness upheld within the healthcare setting.

Balanced Views on Equipment Availability and Standard: Satisfaction levels exhibit a more balanced distribution for equipment availability and standard, with a significant number of " Acceptable Satisfaction " responses (51 out of 200),7 were “Somewhat dissatisfied” and 4 “very dissatisfied”. This observation suggests the need for a closer examination and potential improvements in this area

Room for Improvement in Building: The variability in satisfaction levels regarding the "Good Building" aspect, indicates an opportunity for further enhancement.

The Beneficiaries Satisfaction Index (BSI) score of 6.16 reflects the overall sentiment among patients. This score signifies that patients were generally quite satisfied with the operation of healthcare services. Notably, satisfaction was highlighted in their contentment with staff attitude, technical competencies of the staff, and availability of supplies among other factors. The BSI provides a synthesized view,

strategically guiding stakeholders to identify and prioritize areas for improvement based on the distinct levels of satisfaction observed.

In this study, indexing was also done on the scores to identify the relative importance of each factor based on the total scores and assign ranks accordingly. The Relative Importance Index (RII) is a tool used to evaluate the relative significance of various factors in determining an overall outcome - in this case, patient satisfaction is calculated using the formula:

$RII = \sum W / (A * N)$

Where W is the weight provided by each respondent and it ranges from 1 to 5; A = 5 (which is fixed for all calculations and represents the highest possible weight), and N is the total number of respondents.

Table No.6.15 presents the Relative Importance Index of Beneficiaries Satisfaction Scores for various factors influencing patient satisfaction. RII helps in prioritizing efforts and resources by highlighting which factors have a higher impact on the desired outcome. In the context of this table, a higher RII indicates that the corresponding factor holds greater importance in influencing patient satisfaction compared to other factors.

Table No.6.15
Relative Importance Index (RII) of Beneficiaries Satisfaction Score

Reasons behind satisfaction	**Total Scores**	**A * N**	**RII**	**Rank**
Good Building	741	1000	0.74	6
Cleanliness	813	1000	0.81	4
Staff Attitude	887	1000	0.88	1
Technical competencies of staff	868	1000	0.86	2
Availability and Standard of Medicine	820	1000	0.82	3
Equipment Availability and Standard of Equipment	767	1000	0.76	5

Source: Field Study

The provided table (Table No.6.15) presents the Relative Importance Index (RII) of different factors influencing beneficiaries' satisfaction scores. These factors include "Quality of Building," "Cleanliness," "Staff Attitude," "Technical

Competencies of Staff," "Availability and Quality of Medicine," and "Availability and Quality of Equipment."

The RII, which quantifies the relative importance of each factor in influencing beneficiary satisfaction, has been calculated based on the total scores assigned to each factor and its corresponding A * N value. The RII values have then been used to rank the factors in terms of their influence on satisfaction The rank is assigned based on the RII values. The factor with the highest CRI gets Rank 1, followed by Rank 2 for the second-highest, and so on.

Findings from the Analysis:

Upon analysing the RII values and rankings, several insights regarding factors affecting beneficiary satisfaction emerge:

Staff Attitude: "Staff Attitude" holds the highest RII value of 0.88, indicating its paramount importance in influencing beneficiary satisfaction. The top rank assigned to this factor signifies that the attitude of the staff plays a critical role in shaping overall satisfaction levels.

Technical Competencies of Staff: The RII for "Technical Competencies of Staff" is 0.86, placing it in the second rank. This highlights the significance of the technical skills and competence of the healthcare staff in influencing beneficiary satisfaction.

Availability and Quality of Medicine: With an RII of 0.82, "Availability and Quality of Medicine" takes the third rank. This shows that ensuring consistent access to quality medicines significantly impact beneficiary satisfaction.

Cleanliness: With an RII of 0.81, "Cleanliness" secures the fourth rank. This suggests that the level of cleanliness contributes to beneficiary satisfaction, though not as much as the top three factors.

Availability and Quality of Equipment: "Availability and Quality of Equipment" holds an RII of 0.76 and ranks fifth. This suggests that while equipment availability and quality contribute to satisfaction, they are of relatively lower importance compared to the above four factors.

Quality of Building: The "Quality of Building" factor has the lowest RII value of 0.74, earning it the sixth rank. This implies that while the infrastructure's quality is relevant to beneficiary satisfaction, it holds the least relative importance among the considered factors.

Analysing Challenges based on Satisfaction Level Scores and RII:

Quality of Building (RII: 0.74, Rank: 6): The relatively low RII for the "Quality of Building" highlights that while building infrastructure is important, it has lower relative importance compared to other factors. The satisfaction scores suggest challenges related to building quality, layout, accessibility, or amenities. Addressing these challenges might involve improvements in the physical environment to align it better with beneficiary expectations.

Availability and Quality of Equipment (RII: 0.76, Rank: 5): The RII indicates that equipment availability and quality have a certain impact on beneficiary satisfaction. However, the scores point to challenges in terms of equipment availability, functionality, or quality. Ensuring consistent availability and proper maintenance of necessary equipment is crucial for positive healthcare experiences.

By focusing on the identified challenges and taking steps to address them, healthcare facilities can enhance beneficiary satisfaction and overall service quality.

Suggestions for Improvement

According to the feedback received from beneficiaries, several suggestions were made for the improvement of healthcare delivery through the Sub-Centre. A significant majority of 80 percent of respondents believed that the Sub-Centre/Clinic could benefit from being housed in a better building. Additionally, 92.5 percent of respondents expressed a desire for more advanced equipment, while 65.5 percent believed that the Sub-Centre/Clinics required additional staff. Furthermore, 93.5 percent of respondents suggested that the function and role of Sub-Centres/Clinics could be strengthened by ensuring a better supply of medicine that adequately caters to the needs of the community. In terms of specific services, 53 percent of respondents desired the inclusion of dental care in the services provided by the Sub-Centre/Clinic. Similarly, 54.5 percent of respondents specifically desired the inclusion of eye care services. Additionally, 63 percent of respondents suggested the establishment of outlets for generic medicine at low prices within the Sub Centre/Clinics. This would enable the availability of essential medicines that are not provided for free, at reasonable rates (refer to Table No.6.16).

Table No. 6.16

Suggestions for Improvement

Sl. No	Location	Better Building	More Advanced Equipment	Increase the Number of Staff	Supply of adequate medicines	Provide Dental Care	Provide Eye Care	Make Provision of Jan Aushadhi Store/Generic Medicine outlet	Total
1	Bawngkawn	5	5	5	5	5	5	3	33
2	Bethlehem Vengthlang	4	4	4	4	4	4	4	28
3	Chaltlang	1	4	4	4	1	0	0	14
4	Chandmari (Lunglei)	10	15	13	14	1	2	2	57
5	Chanmari (Aizawl)	5	5	3	4	1	1	2	21
6	Chanmari West	1	1	4	4	4	4	4	22
7	Chawnpui	5	5	0	5	0	2	5	22
8	College veng	0	0	0	0	0	0	0	0
9	Dawrpui vengthar	3	5	2	5	1	1	3	20
10	Dinthar	4	4	4	4	4	4	4	28
11	Electric Veng (Lunglei)	9	9	9	10	6	7	5	55
12	Farm Veng (Lunglei)	5	7	2	7	2	3	5	31
13	Hrangchalkawn	0	0	0	0	0	0	0	0
14	Kulikawn	3	4	1	2	0	0	0	10
15	Luangmual (Lunglei)	2	4	0	3	1	2	2	14
16	Luangmual + Chawlhhmun (Aizawl)	5	5	5	5	5	5	5	35
17	Lunglawn	0	0	0	0	0	0	0	0
18	Maubawk	5	5	2	5	2	1	3	23
19	Pukpui	4	5	4	6	4	4	2	29
20	Rahsiveng	6	6	6	6	2	0	2	28
21	Ramhlun	5	5	5	5	0	0	5	25
22	Ramhlun venglai	5	5	5	5	4	5	5	34
23	Ramthar	0	0	0	0	0	0	0	0
24	Tanhril	0	10	0	10	2	4	6	32
25	Thakthing	5	5	5	5	0	0	5	25
26	Theiriat	8	8	7	8	7	7	7	52
27	Thuampui	0	3	0	3	3	3	3	15

Sl. No	Location	Better Building	More Advanced Equipment	Increase the Number of Staff	Supply of adequate medicines	Provide Dental Care	Provide Eye Care	Make Provision of Jan Aushadhi Store/Generic Medicine outlet	Total
28	Tlangnuam	5	5	5	5	5	5	4	34
29	Vaivakawn	4	4	4	4	4	4	4	28
30	Vanhne	7	7	4	7	7	7	7	46
31	Venghlun	0	2	0	0	0	0	0	2
32	Zarkawt	4	4	2	5	4	4	4	27
33	Zemabawk	7	7	7	7	7	7	1	43
34	Zobawk	4	4	4	1	0	0	1	14
35	Zohnuai	9	3	2	9	3	3	6	35
36	Zotlang (Lunglei)	3	3	3	3	3	1	1	17
37	Zotlang (Aizawl)	10	10	3	10	9	9	10	61
38	Zotuitlang	7	7	7	7	5	5	6	44
Total		**160**	**185**	**131**	**187**	**106**	**109**	**126**	**1004**
		80 percent	92.50 percent	65.50 percent	93.50 percent	53 percent	54.50 percent	63 percent	

Source: Field Study

Responses from Health Officials

The ongoing transformation of Sub Centres involves the conversion into Health and Wellness Centres, which will entail an expansion of their functional scope. These centres will be furnished with appropriate equipment and The establishment is manned by a skilled and capable Primary Health Care ensemble, comprising of Multi-Purpose Workers of both genders, as well as Accredited Social Health Activists (ASHAs). The entire operation is supervised by a Mid-Level Health Provider (MLHP), ensuring efficient management and quality control. In several states, a Mid-Level Health Provider (MLHP) who holds the title of Community Health Officer (CHO) and is typically a B.Sc./GNM Nurse or an Ayurveda Practitioner who has undergone specialized training and accreditation in a government certified programme in Community Health leads the primary healthcare team at the Sub Health Centre level AB- HWCs. The designation of a Mid-Level Health Provider (MLHP) in Mizoram is based on their educational background; those with a B.Sc. (Nursing) or GNM Nursing degree are known as Health and Wellness Officers (HWOs), whereas AYUSH doctors

appointed as MLHPs are known as Community Health Officers (CHO) or Medical Officers (M.O.).

The basic demography of the sample government officials was profiled through the administration of questionnaires to help us understand the framework and the contextual backdrop of primary health care and its management. The indicators used were gender, age, qualifications, status in the family, years of service and designation.

Questionnaires were administered to 104 officials of which 72 were females while 32 were male. Among the officials, there were two individuals who were below the age of 25, 33 individuals who fell within the age range of 25 to 35, 41 individuals who were between the ages of 35 and 50, and 28 individuals who were above the age of 50. The Health Official Respondents included - One (1) Supervisor, two Medical Officers (AYUSH),13 Health and Wellness Officers (HWO),52 Auxiliary Nurse Midwives (ANM),21 Multi-Purpose Health Workers(MPW) and 15 Attendants(See Table.No.6.17).

A total of 2.9 percent of officials possessed qualifications up to the Middle School Level, having passed the eighth grade. Approximately 23.1percent of the officials possessed qualifications up to the Higher Secondary School Leaving Certificate level, while 50percent held qualifications at the High School Leaving Certificate level. Of the total population surveyed, 20.2percent held a bachelor's degree and 3.8percent held a postgraduate degree. (Table No.6.17)

Table 6.17

Demographic Characteristics of Officials

Sl.No	**Particulars**	**Frequency**	**Percent**	**Cumulative Percent**
1	**Gender**			
1.1	Male	32	30.8	30.8
1.2	Female	72	69.2	100
Total		**104**	**100**	
2	**Age**			
2.1	< 25	2	1.9	1.9
2.2	25-35	33	31.8	33.7

Sl.No	Particulars	Frequency	Percent	Cumulative Percent
2.3	36-50	41	39.4	73.1
2.4	> 50	28	26.9	100.0
Total		**104**	**100.0**	
3	**Qualifications**			
3.1	Middle School	3	2.9	2.9
3.2	High School	52	50.0	52.9
3.3	Higher secondary	24	23.1	76.0
3.4	Graduate	21	20.2	96.2
3.5	Post Graduate	4	3.8	100.0
Total		**104**	**100.0**	
4	**Status in family**			
4.1	Son	2	1.9	1.9
4.2	Father	30	28.8	30.7
4.3	Daughter	20	19.3	50
4.4	Mother	52	50	100
Total		**104**	**100**	
5	**Years of Service**			
5.1	0-1 Years	9	8.7	8.7
5.2	2-5 Years	20	19.2	27.9
5.3	5 Years and Above	75	72.1	100.0
Total		**104**	**100.0**	
6	**Designation**			
6.1	Supervisor	1	0.9	0.9
6.2	M.O(Ayush)	2	1.8	2.7
6.3	HWO	13	12.5	15.2
6.4	ANM	52	50.0	65.2
6.5	MPW	21	20.3	85.5
6.6	Fourth Grade	15	14.5	100.0
Total		**104**	**100.0**	

Source: Field Study

Regarding their years of service,8.7 percent have been in service for 0-1 years,19.2 have been in service for 2-5 years and 72.1 percent have been in service for 5 Years and Above. With respect to their position and status in their individual family,1.9 percent were sons,19.3 were daughters,28.8 percent were fathers and 50 percent were mothers.

Location and Accessibility

When officials were asked whether the Sub Centre was connected by a motorable road,98.1 percent said Yes while only 1.9 percent. Fields Visits to all the Sub Centres has established that of all the 38 Sub Centres visited, only one-Zotlang SHC-HWC, Lunglei District- is not connected by a motorable road.

Regarding services available, only 17.3percent of the health authorities indicated the availability of Sub-Centre services for 24 hours, whereas 82.7percent indicated the unavailability of such services for 24 hours. (Table No 6.18). During Field Visit, it has also been ascertained that the Sub Centres were usually expected to be opened during office hours but tended to close earlier than other departmental office.

Table No.6.18

Whether connected by motorable road (Officials)

Availability	**Frequency**	**Percent**	**Cumulative Percent**
Yes	**102**	**98.1**	**98.1**
No	**2**	**1.9**	**100**
Total	**104**	**100**	
Table No.6.Availability of Sub-Centre for 24 Hours			
Availability	**Frequency**	**Percent**	**Cumulative Percent**
Yes	**18**	**17.3**	**17.3**
No	**86**	**82.7**	**100**
Total	**104**	**100**	

Source: Field Study

Availability and condition of Physical Infrastructure

When officials were asked about the conditions of the building and rooms, 51 percent acknowledged that the buildings and rooms were in good conditions. The

remaining 49 percent believed that the building and rooms were not in good conditions.(Table No.6.19) The reasons were fairly common across most Sub Centres- the buildings were too old and too small in comparison to the population that it caters to, congested and rooms were too small, no proper place for patients to sit while awaiting treatment especially on Vaccine days, there is no space for handwashing site, the buildings are always in need of repairs especially now that it has been upgraded to Health and Wellness Centre, new building urgently needed, approach to the building is inconvenient for patients, new fencing is also required etc.,

Out of this 49 percent,41.3 percent of respondents stated that although the building and rooms were not in good conditions, they were functional while 7.7 percent (a total of 8 officials) believed that the buildings and rooms were not functional and unfit for treating patients (Table.No.6.19).

With respect to overall cleanliness,82.7 percent of official respondents said the Sub Centre was Clean enough,17.3 percent said it was clean in some places only.

Table No.6.19

Availability and Condition of Physical Infrastructure(o)

Whether designated Government building is available			
	Frequency	**Percent**	**Cumulative Percent**
No	23	22.1	22.1
Yes	81	77.9	100
Total	**104**	**100**	
Other arrangements for accommodation			
	Frequency	**Percent**	**Cumulative Percent**
Accommodated in Local Council House free of cost	14	13.5	13.5
Attached to YMA Hall	9	8.6	22.1
N.A	81	77.9	100
Total	**104**	**100**	
Whether building /rooms are in good condition.			
	Frequency	**Percent**	**Cumulative Percent**
No	51	49	49
Yes	53	51	100
Total	**104**	**100**	
Whether Building is functional.			
	Frequency	**Percent**	**Cumulative Percent**
N.A	53	51	51
No, Unfit for treating patients	8	7.7	58.7
Yes	43	41.3	100
Total	**104**	**100**	

Whether Sub Centre is Clean			
Clean	86	82.7	82.7
Clean in some places only	18	17.3	100
Total	**104**	**100**	

Source: Field Survey

Availability of Facilities and Support Services

Availability of basic facilities and equipment in the Sub Health Centres/Clinics as accounted for by the officials are presented in Table No.6.20. Basic facilities/needs include water, electricity, toilet facilities, examination bed, delivery bed, delivery equipment, first aid kit for dressing, landline telephone, B.P Apparatus, Weighing Scale, Sterilizer etc. All (100 percent) official respondents agreed that there were functional toilets in the Sub Centres they frequented, 84.5 percent of official respondents said there were separate electric connection in the Sub Centre,11.6 percent stated that their Sub Centres shared the power supply of the YMA Hall and Local Council House.75 of official respondents also reported that there were separate water connection, the remaining 29 percent informed that in the absence of separate water connection, other sources include-those bought by the employees, shared from the Local Church, shared from the Local Council water Connection, shared from YMA water Connection, neighbours and rain water ,procured from PHE public point. 10.6 percent said that their Sub Centre had a landline telephone connection.

The findings from field visits to individual sub-centres indicate that, at a minimum, functional examination tables were observed in all of the sub-centres/clinics that were studied,91.3 percent of official respondents corroborated to this, though only 3.8 percent of them testified that they had delivery beds and delivery equipment. (Table No.6.20).

All participants indicated that the B.P Apparatus were in satisfactory operational status. While all respondents testified that there were weighing scales available,5.8 percent said the weighing scales were not in working.49.1 percent of the official respondents said their Sub Centres/Clinics had sterilizer instruments, 28.8 said that sterilization was done by boiling.

When officials were asked about the availability of essential items in the First Aid Kit for dressing of wounds.94.2 percent said only some items in the First Aid Kit were available, only 5.8 percent said all items of the Kit were available.

Table No.6.20

Availability of Facilities (Officials)

Particulars	Frequency	Percent	Cumulative Percent
Availability of Electric supply			
No	4	3.8	3.8
Yes	88	84.6	88.4
Other Sources	12	11.6	100
Total	104	100	
Water connection Status			
No	29	27.9	27.9
Yes	75	72.1	100.0
Total	104	100.0	
Availability of Toilets			
Yes	104	100.0	100.0
Telephone/mobile Connection Status			
No	93	89.4	89.4
Yes	11	10.6	100.0 Contd.
Total	104	100.0	
Separate delivery room Status			
No	100	96.2	96.2
Yes	4	3.8	100.0
Total	104	100.0	
Delivery Beds and other Facilities for delivery			
No	100	96.2	96.2
Yes	4	3.8	100.0
Total	104	100.0	
Availability of First Aid Kit for Wounds			
Some items are available	98	94.2	94.2
All items are Available	6	5.8	100
Total	104	100.0	
Availability of BP Apparatus			

Particulars	Frequency	Percent	Cumulative Percent
Yes	104	100.0	100.0
BP Apparatus in good working condition?			
Yes	104	100.0	100.0
Availability of Weighing Machine			
Yes	104	100.0	100.0
Weighing machine in good working condition			
No	6	5.8	5.8
Yes	98	94.2	100.0
Total	104	100.0	
Availability of Sterilizer Instrument			
No	23	22.1	22.1
strerilized by boiling	30	28.8	50.9
Yes	51	49.1	100.0
Total	104	100.0	
Availability of Examination Table			
No	9	8.7	8.7
Yes	95	91.3	100.0
Total	104	100.0	

Source: Field Study

Availability and Status of Services

Availability of services in the Sub Centre was profiled under various indicators. Under Antenatal Services, all respondents (100 percent) agreed that all expectant mothers were registered regularly,97.1percent said that weight of all expectant mothers were checked, remaining 2.9 percent informed that weight were not checked because scale was not working.86.5 percent stated that height of all expectant mothers were checked,100 percent said blood pressure of expectant mothers were regularly checked and 97.1 percent said that abdominal examinations was done for expectant mothers after the 5^{th} month of pregnancy. When questioned whether Intranatal Care was available,96.2 percent replied in the negative. According to the survey results, all participants (100 percent) reported that referrals for complex pregnancy cases were carried out at the Sub Centre level.

In respect of routine immunization services as per Government Schedule, all official respondents (100 percent) replied in the affirmative. The availability and provision of vitamin A supplements, IFA pills/syrup, and albendazole tablets by the subcentre were reported by 97.1 percent of the respondents. According to the survey results, a majority of 76 percent reported that the provision of treatment for diarrhoea and dehydration in the form of oral rehydration solution (ORS) was consistently accessible at the sub centre. The survey results indicate that all participants reported the availability of the Peripheral blood smear facility at the Sub centre for detecting malaria in cases of fever. Additionally, 44.2 percent of respondents reported the availability of urine testing at the Sub Centre, while 5.8 percent reported occasional availability. All respondents reported that the Sub centre provided contraceptive services such as Copper-T insertion, distribution of oral contraceptive pills, and condoms. (Table No.6.21)

With respect to treatment of day-to-day common ailments.29.8 percent it was available while the exact number of 29.8 percent said it was Sometimes available. 100 percent of respondents affirmed that Malaria treatment was available. Only 25 percent said that TB treatment was available while all official respondents testified to the fact that treatment for Leprosy was unavailable in the Sub Centre.

When asked whether dressing of wounds was done in a proper manner in the Sub Centre,59.6 percent confirmed that proper treatment and dressing of wounds were done,34.7 said it was done Sometimes,3.8 percent said it was done but only perfunctorily and 1.9 percent said such treatment was not done.

Table No.6.21

Availability of Services (Officials)

Services	Frequency	Percent	Cumulative Percent
1. Antenatal Care services			
1.1 Expectant Mothers Registered Regularly			
Yes	104	100.0	100.0
1.2 Weight of all Expectant Mothers Checked			
scale is Not working	3	2.9	2.9
Yes	101	97.1	100.0
Total	**104**	**100.0**	

Services	Frequency	Percent	Cumulative Percent
1.3 Height of all Expectant Mothers being Measured			
No	4	3.9	3.9
Sometimes	10	9.6	13.5
Yes	90	86.5	100.0
Total	**104**	**100.0**	
1.4 Blood Pressure of Expectant Mothers being Checked			
Yes	104	100.0	100.0
1.5 Abdominal Examination done for Expectant Mothers After the 5th Month			
Yes	101	97.1	97.1
Sometimes	3	2.9	100.0
Total	**104**	**100.0**	
1.6 Is Facility for Intranatal Care (Delivery) Available			
Yes	4	3.8	3.8
No	100	96.2	100.0
Total	**104**	**100**	
1.7 Referral of Complicated Cases of Pregnancy / Delivery done			
Yes	104	100.0	100.0
2. Immunization			
Yes	104	100.0	100.0
3. Availability of VitaminA, IFA, Calcium, TT, Albendazole etc			
Sometimes	3	2.9	2.9
Yes	101	97.1	100.0
Total	**104**	**100.0**	
4. Availability of treatment for Diarrhoea and Dehydration			
No	17	16.3	16.3
Sometimes	8	7.7	24.0
Yes	79	76.0	100.0
Total	**104**	**100.0**	
5. Peripheral Blood Smear/Test			
Yes	104	100.0	100.0
6. Urine Test			
No	52	50.0	50.0
Sometimes	6	5.8	55.8
Yes	46	44.2	100.0

Services	Frequency	Percent	Cumulative Percent
Total	**104**	**100.0**	
7. Status of Contraceptives			
Yes	104	100.0	100.0
8. Treatment for day to day's Simple Illnesses			
No	42	40.4	40.4
Sometimes	31	29.8	70.2
Yes	31	29.8	100.0
Total	**104**	**100.0**	
9. Availability Malaria Treatment			
Yes	104	100.0	100.0
10. Availability TB Treatment			
No	78	75.0	75.0
Yes	26	25.0	100.0
Total	**104**	**100.0**	
11. Availability Leprosy Treatment			
No	104	100.0	100.0
12. Is proper dressing done for an injured person?			
No	2	1.9	1.9
Not properly done	4	3.8	5.7
Sometimes	36	34.7	40.4
Yes	62	59.6	100.0
Total	**104**	**100.0**	

Source: Field Study

Status of Doctor's Visit

Official respondents were asked about doctor's visit to the Sub Centres in the last three months, 81.7 percent said that a doctor had not visited in the past three months. 14.4 percent said the doctor had visited once in the past three months while 3.9 percent said doctor had visited twice. When asked if a doctor had visited the Sub Centre at all, 51.9 percent responded in the negative, 27.9 said Yes,20.2 percent said that doctors visited Sometimes. According to the survey results, 26.9percent of respondents confirmed that the beneficiaries were informed about the timings of the

doctor's visit, while 21.2percent were uncertain and could not provide a definitive answer.

According to the survey results, a majority of respondents (91.3 percent) reported that Specialist doctors did not visit the Sub Centres, while a minority (8.7 percent) reported that they did. (See Table No.6.22)

Table No.6.22

Status of Doctor's Visit to Sub Centres (Officials)

Particulars	**Frequency**	**Percentage**	**Cumulative**	
Doctor Visit in the last 3 months				
one time	15	14.4	14.4	
two times	4	3.9	18.3	
No visit in 3 months	85	81.7	100.0	
Total	104	100.0		
Does the Doctor ever pay any visits to the Sub-Centre?				
No	54	51.9	51.9	
Sometimes	21	20.2	72.1	
Yes	29	27.9	100.0	
Total	104	100.0		
Are residents made aware of Doctor's visit				
Cannot Say	22	21.2	21.2	
N.A	54	51.9	73.1	
Yes	28	26.9	100.0	
Total	104	100.0		
Does Specialist doctor ever visit?				
No	95	91.3	91.3	
Yes	9	8.7	100.0	
Total	104	100.0		

Source: Field Study

Standard of Service

In relation to the Standards of Service, the investigation revealed unanimous agreement among all official participants (100 percent) that patients were not subjected to prolonged waiting periods when accessing services from the Sub Centres. Additionally, 95.2 percent of respondents acknowledged the presence of waiting areas with comfortable seating arrangements. Furthermore, all respondents (100 percent) confirmed that patients did not have to pay any money for the facilities provided at the

Centre. Finally, 100 percent of respondents verified that those receiving treatment were told of the medical problems they were experiencing by the health officials using an acceptable manner of language that was easy to comprehend, including a display of receptivity and compassion.

All of the health officials surveyed indicated that they consider it crucial to exhibit kindness, courtesy, attentiveness, and support towards patients to the fullest extent feasible. All respondents who held official positions reported that patients were given access to free medication if it was available at the Centre. All of the respondents who held official positions reported that depending on the severity of the ailment, they referred patients to higher-level medical facilities including primary care centres and District Hospital, when questioned about the location of referral. (Table. No.6.23). When asked further if there was arrangement of vehicles for referral done by the Sub Centre,94.2 percent said No while 5.8 percent replied in the affirmative.

Table No.6.23

Status/Quality of Services

Services Status	Frequency	Percent	Cumulative Percent
Are Patients required to wait for treatment?			
No	104	100.0	100.0
Are there comfortable seating arrangements while waiting?			
No	5	4.8	4.8
Yes	99	95.2	100.0
Total	**104**	**100.0**	
Do patients have to pay for medical consultations in the Sub-Centre?			
No	104	100.0	100.0
Do you adequately clarify and communicate the patient's health condition with kindness and understanding in a language the patient can understand?			
Yes	104	100.0	100.0
Is it deemed significant to exhibit kindness, courtesy, attentiveness, and support towards patients to the best of one's ability?			
Yes	104	100.0	100.0
Do patients have to pay for medicine in the Sub-Centre?			
No	104	100.0	100.0

Have patients been referred to another healthcare centre based on the type of illness they have?			
No	104	100.0	100.0
Arrangement of vehicle for referral done by the sub centre?			
No	98	94.2	94.2
Yes	6	5.8	100.0
Total	**104**	**100.0**	

Source: Field Study

As indicated in Table No. 6.24, in relation to Quality control 93.3 percent of the official respondents stated that a Citizens Charter is displayed in the local language at the Sub Centre. According to the survey results, when questioned about the verification of health records by the PHC on a weekly basis, half (50 percent) of the respondents provided negative responses. A portion of the respondents, 21.4 percent, gave affirmative answers, whereas the remaining 28.6 percent mentioned that the verification of these records was occasionally carried out by the PHC. When asked, only 28.6 percent of respondents said that the M.O. had validated the documents in compliance with government standards.

Table. No.6.24

Quality Control

Is there a Citizens' charter in the local language?			
No	7	6.7	6.7
Yes	97	93.3	100.0
Total	**104**	**100.0**	
Does the PHC check the Health Record of the Sub Centre on a weekly basis?			
No	71	68.3	68.3
Sometimes	26	25.0	93.3
Yes	7	6.7	100.0
Total	**104**	**100.0**	
Does a Medical Doctor check the Health Record of the Sub Centre on a monthly basis?			
No	64	61.5	61.5
Sometimes	31	29.8	91.3
Yes	9	8.7	100.0

Total	**104**	**100.0**	
Does the Local/Village Health Sanitation and Nutrition Committee supervise the working of the Sub Centres?			
No	20	19.2	19.2
Sometimes	32	30.8	50.0
Yes	52	50.0	100.0
Total	**104**	**100.0**	

Source: Field Study

When officials were asked to give suggestions for improvement of healthcare delivery through the Sub-Centre,100 percent official respondents believed that the Sub Centre/Clinic could be accommodated in a better building and desired more advanced equipments,42.9 percent believed the Sub-Centre/Clinics needed more staff,92.9 percent suggested that the function and role of Sub Centres/Clinics would be strengthened with better supply of medicine,57.1 percent of official respondents desired that dental and eye care would be included in the services provided by the Sub-centre/Clinic,50 percent suggested that outlets for generic medicine at low prices may be made at the Sub Centre/Clinics so that essential medicines which are not available for free supply could be made available at affordable prices.

In essence, this chapter serves as a synthesis of the field data and information that have been collected and scrutinized within the framework of the research endeavour. The empirical investigation, encompassing the physical execution of fieldwork, the administration of questionnaires, the conduct of face-to-face interviews, and interactions with stakeholders, has been undertaken to corroborate the veracity of the collected data.

CHAPTER VII
CONCLUSION

In the preceding chapter, the outcomes of a field study on various aspects were examined and discussed. These aspects encompassed the profiles of the respondents, the accessibility of manpower, the presence of infrastructure and amenities, the availability and standard of services, the level of public awareness, viewpoints, and satisfaction regarding the operations of Sub Centres/Health and Wellness Centres in Mizoram. The perspectives and views of officials engaged in Sub Health Centres were also studied, along with the role undertaken by Accredited Social Health Activists (ASHAs) in providing services. This study was conducted across selected Sub Centres/Health and Wellness Centres in Mizoram.

The present chapter is organized into two parts. The first part covers a summary of all the previous chapters, encompassing Chapter One through Chapter Six.It aims to provide a summary of the cumulative content. The Second part discusses the research questions and general conclusion, highlighting the study's major findings. Also, it contains possible remedial solutions and suggested measures to be taken to enhance the efficiency of Primary Healthcare Delivery Services in Mizoram. Since an in-depth study of this nature requires limiting the geographical parameter of the study, the study has been done specifically on the working of Sub Health Centres in Aizawl District and Lunglei District. Aizawl, serving as the state capital and positioned in the northern region, holds significance in this regard. On the other hand, Lunglei District, representing the southern part of Mizoram, is the most expansive district in terms of area. Moreover, it is the seat of the High-Powered Committee, making it a pivotal area of focus within the research.

PART-I

The study comprises a total of seven chapters, each contributing a different perspective and contributing to the comprehensive exploration of the research topic. These chapters collectively form a cohesive narrative that seeks to unravel the intricacies of the subject matter and shed light on its multifaceted dimensions. The

structure and content of each chapter have been planned to progressively delve deeper into the specifics of the research, leading to a well-rounded understanding of the issues at hand. This chapter arrangement enables thorough exploration, leading toinformed conclusions and practical suggestions, for primary healthcare improvements in Mizoram.

Chapter I: Introduction begins with a brief summary of the fundamental idea, definition, and theoretical aspects of health, primary healthcare, and sub health centres—their significance and function in the growth and development of the country. The chapter also discusses the value and significance of the current study as well as the function of Primary Health Care (PHC) as a crucial approach that continues to form the basis of the delivery of healthcare services. The chapter also includes evaluations of several literature sources that were deemed significant and pertinent to the current study, a statement of the problem, the study's scope and objectives, the research questions, its methodology, and chapterization.

Chapter II: Health Administration: A Conceptual Study examines the theoretical basis and guiding principles of health administration from a global, national, and state perspectives.. Several aspects of health have been discussed, includingthe conceptualization of health in relation to the three prominent approaches to health, namely the medical, holistic, and wellness models. In addition, the notion of healthcare, including the health system, sector, and agencies within it, has been examined. Also, the different levels of healthcare and the evolving perspectives on health have also been subject to comprehensive analysis. This chapter provides an overview of various topics related to healthcare, including ComprehensiveHealthcare, Basic Health Services, Primary Health Care, and their fundamental concepts. It explores the elements, principles, and essential components of Primary Healthcare, as well as the extended elements in the 21st Century. Additionally, it examines the relationship between Primary Healthcare and the Millennium Development Goals, along with health-related indicators. Furthermore, it discusses theconnection between Primary Healthcare and the Sustainable Development Goals, highlighting health-related indicators. Lastly, it briefly examines the healthcare system in India and its response to the Covid-19 pandemic.

Chapter III: Health Administration in India: A Historical Perspective focuses on the historical perspective of Health Administration in India. It examines the past in the context of healthcare management in India, from ancient India during the Vedic Period, the Buddhist Period and the captivating life of Gautama Buddha whose teachings inspired the wholesome, moderate, lifestyle-related concept of health with a clear focus on individual responsibility and on moderation or 'the middle path'. The discussion continues with the development of healthcare during the medieval period, the advent of Christianity, the initiation of modern system medicine, and the subsequent development of healthcare, medical training, and education during British Rule in India. The position of the healthcare delivery system pre and post-independence has been discussed in some detail highlighting the basic premises of Primary Healthcare in India. Five-Year Plans with health-related factors and Government Health Policies and important, landmark Health Missions are also highlighted.

Chapter IV: Mizoram- A Profile discusses the general profile of Mizoram State focusing on its geography including the general topography, the climate, the lakes and rivers, a brief political and administrative history, and changes from traditional chieftainship, its abolition, insurgency and the achievement of statehood status, status and challenges related to Communication and Transport, economic features of the state including agriculture, horticulture, forests, industry, mineral and tourism sectors, the general demography, health status and pertinent issues of healthcare specific to Mizoram- detailing the achievements as well as areas of concern - the toughest challenges in the health sphere ranging from transmissible illnesses, Malaria and non-transmissible diseases like Cancer arising from the rampant use of Tobacco products, cardiovascular and lifestyle, and age-related diseases, malnutrition, etc.

Chapter V: Working of Health Sub Centres in Mizoram – Issues and Challenges provides a conceptual overview of the working of Sub Centres in Mizoram, including details about the origin, expansion, and development of the primary healthcare delivery system in Mizoram. Since a detailed study of this nature requires limiting the geographical parameters, the research specifically focuses on the management of primary healthcare delivery services in Aizawl District and Lunglei District. These two districts have been chosen since they represent the northern and

southern parts of Mizoram respectively-Aizawl being the state capital and the headquarters in the north Mizoram and Lunglei District representing the southern region of Mizoram, the largest district in terms of area, where the High Powered Committee has been set up.

Chapter VI- Results and Discussion presents an analysis of the field study conducted in selected sub-centres located in Aizawl and Lunglei. The study primarily focuses on various aspects, including the respondents' socio-demographic features, availability of manpower, infrastructure and facilities, service availability, service standards, public awareness, and aspects of satisfaction regarding the function and role of the Sub Centre. It encompasses the viewpoints and perspectives of various healthcare professionals, namely the officials serving as Health and Wellness Officers, Trained Auxiliary Nurse Midwives (ANM), and Multipurpose Workers (MPW). The discussions revolve around proposed corrective actions and the involvement of Accredited Social Health Activists (ASHAs) in the provision of healthcare services. The specific focus is on the Sub Health Centres located in the districts of Aizawl and Lunglei. This study aims to analyze and describe the operations of Sub Health Centres/Health and Wellness Centres in Mizoram, with a specific focus on Aizawl and Lunglei.

The objectives of the study are to determine the roles, functions, and responsibilities of the sub centres, identify any problems and challenges in service delivery, assess the level of awareness among the population regarding the roles and functions of Sub Health Centres, evaluate the satisfaction levels of the population with the functioning of these health units in Mizoram, and propose potential solutions to enhance the effectiveness of Sub Health Centres in Mizoram.

PART-II

In light of the current study, it may be ascertained that no systematic and reliable study has been undertaken previous to the present study regarding the working of Sub Centres in Mizoram. It has been established from prior sources and repeated throughout this study that Christian missionaries were instrumental in the development of modern healthcare and basic healthcare services in Mizoram State. Due to their dedication to healthcare, Christian Missionaries pioneered

modern primary healthcare in Mizoram and Mizo society. Modern healthcare services in Mizoram were established by the combined efforts of the British Administration and Christian missionaries. Mizoram had no scientific healthcare facilities till 1894. The first Medical Officer for Mizoram was sanctioned and appointed in 1890, following the second British Expedition against the Mizo (1889-1890), however, there are no documented names or dates. Thus, Christian missionaries were instrumental in founding and developing the contemporary healthcare system and the state's primary healthcare system. Mizoram's healthcare services have grown since then. Back then,Aizawl was still the headquarters and starting point for basic health care in northern Mizoram. Since Lunglei was the Southern Headquarters, modern healthcare in South Mizoram began there.

On January 21, 1972, Mizoram was designated as a Union Territory and thereafter, a distinct governmental entity known as the Department of Health and Family Welfare was founded. The Department is comprised of two separate directorates namely the Directorate of Health Services (DHS) and the Directorate of Hospital & Medical Education (DH &ME), each operating with its own allocated financial resources. The Department of Health and Human Services (DHS) is tasked with the establishment, administration, and oversight of medical and health institutions, as well as the provision of assistance for infrastructure, medical education, food safety, and drug control. The DHS is responsible for the supervision and administration of healthcare facilities in rural areas, including Community Health Centres, Primary Health Centres, Sub-Centres, and Rural Hospitals. The DH & ME assumes responsibility for the administration of civil hospitals, including Kulikawn, as well as district hospitals.

Aizawl District in Mizoram is divided into Aizawl East and Aizawl West districts for healthcare service delivery. Currently, Mizoram has one upgraded district hospital, 10 district hospitals, 1 Sub-District Hospital in Kulikawn, 1 Mizoram State Cancer Institute in Zemabawk, and 1 State Referral Hospital in Falkawn. There are 27 private hospitals in the state, with 14 located in Aizawl. Population norms for healthcare units, including primary healthcare units, are relaxed for hilly areas like Mizoram to make healthcare more accessible. The Health and Family Welfare

Department collaborates with various technical and non-technical workforce groups to achieve its healthcare goals.

The state's earliest primary healthcare facilities appear to be the Rural Health Centres, which opened by the missionaries in Sihfa(in 1956), Sawleng(in 1956), Pukzing(in 1956) and Chhawrtui (in 1958)(See Table 5.2). These Rural Health Centres were staffed by nurses and Christian missionaries, who were qualified medical practitioners who visited these health units on a regular basis. These centres had to be closed with the outbreak of insurgency and the subsequent unrest that followed in the state.

Since 1966, primary Sub Health Centres have been steadily established to offer healthcare as near to the population as possible, especially in outlying, rural locations. In Mizoram, there were 3 PHCs by 1966, and there were 4 by 1972. The number of PHC/CHC expanded to 51 PHC/CHC and 314 sub-centres when Mizoram became a state in 1986. There were 67 PHCs, 25 Clinics, and 351 Sub Centres existing in 2001. In 2013, there were 367 Sub centres and 64 PHC/CHCs. Currently, the state has 9 community health centres, 61 primary health centres, 379 sub-centres, and 170 clinics to provide primary healthcare.

The first research question is as follows: i. What are the roles and functions of Sub Health Centres in Mizoram?. Upon addressing this inquiry, it has been established that the principal functions and responsibilities of Primary Health Care at the Sub-Centre level in Mizoram primarily revolve around Reproductive and Child Health (RCH). Consequently, a significant portion of beneficiaries comprises women within the reproductive age bracket, focusing on Antenatal Care (ANC) and routine vaccinations for both women and children. The Sub-Centre’s primary role encompasses preventive and promotive measures, while also encompassing basic curative care. Moreover, it plays an important role in identifying cases that need referral to higher levels of care.

While these Sub Centres/Clinics predominantly emphasize Reproductive and Child Health (RCH) services, they also encompass provisions for non-communicable and communicable diseases. The core emphasis lies in promoting and preventing healthcare by disseminating awareness, offering well-informed advice, and providing guidance and counselling whenever deemed appropriate and necessary.

The Health Sub-Centres encompass a substantial role in managing both communicable and non-communicable diseases, a role that has expanded significantly with the transition to Health and Wellness Centres.

In order to reduce the current 50.59[319] Out of Pocket expenditure on health[320], enhancing Primary Health Care is crucial in curbing the necessity for elevated and costlier healthcare by implementing preventive and promotive measures. The main goal of Primary Health Centres and its Sub-Centres is to offer comprehensive curative and preventive health care as near to the people as possible, with a focus on preventive and promotive elements of healthcare, to the community and population.

It is noteworthy that the range of services and functions carried out by these Sub-Centres is extensive:

1. Primary Focus on Reproductive and Child Health (RCH): Health Sub-Centres in Mizoram primarily focus on women and child health, also referred to as Reproductive and Child Health (RCH) services. These encompass various interventions, including family planning information, counselling and provision of contraceptives free of cost, screening for sexually communicated infections, prenatal and newborn care, and breastfeeding support. With ANMs (Auxiliary Nurse Midwives) stationed at the Sub- Centre, it operates as an open facility providing OPD services on all working days, extending its reach through community outreach.

Additionally, they administer Vitamin A prophylaxis to children according to national guidelines. The Sub-Centres play a key role in preventing and controlling childhood diseases, encompassing malnutrition, infections, Acute Respiratory Infections (ARI), Diarrhoea, Fever, and Anaemia

2. Routine Vaccination Services: Sub-Centres offer essential routine immunization services, ensuring full immunization of infants and children against vaccine- preventable illnesses as per Government of India guidelines. They also employ name- based tracking to ensure comprehensive immunization coverage, along

[319] https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?end=2019&locations=IN&name_desc=true&start=2000 viewed on 03.05.23

[320] Out-of-pocket expenditure refers to the costs that individuals or their families directly pay to healthcare providers, without involving a third party like an insurer or the government. These expenses cover both medical and non-medical aspects of care. In health insurance, out-of-pocket expenses represent your portion of medical costs and include payments like deductibles, copays, and coinsurance.

with identifying, following up, referring, and reporting Adverse Events Following Immunization (AEFI).

3. School Health Services: Sub-Centres extend their services to schools, offering screening, minor ailment treatment, immunization, de-worming, and prevention and management of Vitamin A deficiency and nutritional anaemia. These services are conducted through fixed-day visits to schools by existing ANMs (Auxiliary Nurse Midwives) or MPW4 (Multipurpose Workers).

4. Outreach/Field Services: Sub-Centres organize Village Health and Nutrition Days (VHNDs) for health and nutrition promotion at least once a month in each village, in collaboration with Medical Officers, Health Assistant Females (LHV) of Primary Health Centres (PHC), Health and Wellness Managers (HWM), Health and Wellness Facilitators (HWF), ASHAs, Anganwadi Workers (AWW), supervisory staff, local bodies and Self-Help Groups.

5. House-to-House Surveys: Annual house-to-house surveys are conducted with the involvement of ASHAs, Anganwadi Workers, community volunteers, members of local bodies, and Village Health Sanitation and Nutrition Committee members.

6. Meticulous Record-Keeping: Sub-Centre officials invest substantial time and effort in maintaining records. These include Patient Records, Survey and Eligible Couple Registers, Immunization Records, Maternal and Child Health Records, Medication Records, Reporting and Statistical Records for monitoring health indicators, disease surveillance, programme performance, and financial and administrative aspects. Comprehensive records are crucial for evaluating health status, including morbidity and mortality data, as well as documenting births and deaths within the sub-centre's jurisdiction. This also includes monitoring and reporting the sex ratio at birth, among other vital statistics.

Role and Functions of Sub Centres Regarding National Health Programmes in Communicable Disease Programme: Sub-Centres in Mizoram play a vital role in implementing National Health Programmes, both in the context of communicable and non-communicable disease control. These healthcare institutions serve as critical community hubs for various initiatives aimed at preventing, managing, and eradicating

communicable diseases. Their multifaceted functions and contributions in Communicable Disease programme include the following activities:

(1) National AIDS Control Programme (NACP):

Sub-Centres contribute by promoting and distributing condoms to high-risk groups, conducting Information, Education and Communication (IEC) activities to raise awareness about STIs and HIV/AIDS preventive measures, offering services related to the Prevention of Parent-to-Child Transmission (PPTCT), addressing HIV-TB co-infection, and more.

(2) National Vector Borne Disease Control Programme (NVBDCP): Responsibilities encompass collecting blood slides from fever patients, conducting rapid Diagnostic Tests (RDT) for Pf malaria diagnosis in high Pf endemic regions, and facilitating appropriate anti-malarial treatment.

(3) National Leprosy Eradication Programme (NLEP):

Engagement involves providing health education to communities about leprosy signs and symptoms, referring suspected leprosy cases, and more.

(4) Revised National Tuberculosis Control Programme (RNTCP):

Duties encompass collecting sputum samples, referring suspected symptomatic TB cases to PHC/Microscopy centres, and offering DOTS (Directly Observed Treatment, Short-Course) at the Sub-centre.

Role of Sub Centres Regarding National Health Programmes in Non-communicable Disease (NCD) Programmes:

(1) National Programme for Control of Blindness (NPCB): Involvement includes identifying impaired vision cases during house-to-house surveys, referring appropriately, and spreading awareness about eye problems, early detection, available treatment, and healthcare facilities.

(2) National Programme for Prevention and Control of Deafness (NPPCD): Participation encompasses detecting hearing impairment cases during surveys, referring as needed, and creating awareness about ear issues, early detection of deafness, treatment options, and referral services.

(3) National Mental Health Programme: Responsibilities involve identifying and referring common mental illnesses for treatment, conducting IEC activities for mental

disorder prevention and early detection, and enhancing community participation for primary prevention.

(4) National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases (CVD), and Stroke: Engagement includes conducting IEC activities to promote healthy lifestyles, raise awareness about warning signs for Cancers, Diabetes, CVD, and Strokes, and facilitating prompt referrals.

(5) National Iodine Deficiency Disorders Control: Participation entails conducting IEC activities to encourage iodized salt consumption, and utilizing Salt Testing Kits to assess salt iodine content by ASHAs.

(6) National Tobacco Control Programme: Responsibilities encompass raising awareness and educating on tobacco's adverse effects, particularly among pregnant women and in conditions where tobacco is a risk factor. Displaying "No Smoking" signage is also part of the role.

(7) Oral Health: Engagement involves educating antenatal and lactating mothers, school children, and adolescents on oral health and hygiene, offering basic first aid, and referring cases with oral health issues.

(8) Disability Prevention: Activities include educating on disability prevention, identifying disabled individuals during annual surveys, and referring them accordingly.

(9) National Programme for Health Care of Elderly: Duties encompass counseling the elderly and their families on healthy aging and referring elderly individuals in need of care to PHCs.

Sub-Centres represent the cornerstone of primary healthcare in Mizoram, serving as key enablers for community health and well-being. Their multifaceted roles, ranging from reproductive and child health to participation in national health programmes, reflect their critical importance in addressing healthcare needs at the grassroots level. These centres, in collaboration with dedicated healthcare personnel and community health workers, continue to be instrumental in improving healthcare access, promoting preventive measures, and ensuring the overall health of the population at the primary level.

The Second research question is ii. What are the different aspects of availability and standard of services in the Health Sub Centres in Mizoram?Evaluatingthe Sub Centres in Mizoram involves assessing critical factors, including infrastructure, equipment, staffing, support services and essential health services. A comprehensive evaluation considers these aspects to gauge the effectiveness and impact of Sub Centres in providing accessible and high-quality healthcareto the population.

The study evaluated the services offered and their quality in Mizoram's Sub Centres, taking into account their indispensable role as the first point of contact between the public health system and the population. During the months of July and August 2022, a descriptive cross-sectional study was performed using both primary and secondary data. Participants in the study were drawn from 38 Sub Centres, Health and Wellness Centres, and Clinics in Aizawl and Lunglei. A questionnaire with both closed- and open-ended questions was administered to them.

The survey encompassed a range of dimensions, encompassing the personal details of the participants, broad facts pertaining to the Sub Health Centre, the availability of personnel and physical infrastructure, the access to and quality of services, the involvement and availability of ASHA workers, activities related to Covid-19, screening and provision of services for Non-Communicable Diseases (NCDs), as well as the perspectives and recommendations of the respondents for enhancing healthcare delivery at the Sub-Centre. By examining these aspects, the study aimed to gain insights into public awareness, service availability, standards, and utility of the Sub Centres for the benefit of the community. The findings provide valuable information for improving the functioning of the Sub Centres and enhancing healthcare services in Mizoram.

A majority of Sub Health Centres (SHCs) have dedicated facilities provided by the government for their operations. Out of 38 examined, 32 are housed in government-designated buildings, while four are in the Local Council Building without rental fees. Two are affiliated with the YMA Hall. The study identified the types of buildings in the Sub Centres through field visits, with 23 being Pucca buildings, 5 Semi-Pucca buildings, and 10 being Kuchha buildings. However, patients

reported unsatisfactory conditions in the buildings and rooms, with only 37 percent of patients expressing satisfaction and 63 percent deeming them poor.

The analysis revealed common issues related to the physical infrastructure of the Sub Health Centres. These included small sizes, a lack of separate examination rooms, limited waiting area capacity, and a decrepit appearance. Approximately 59 percent of respondents considered the buildings and rooms functional, indicating that healthcare services were still being provided in suboptimal physical environments. However, 3.5 percent of respondents expressed that the facilities were inadequate for treating patients, highlighting the urgent need for improvements to better support healthcare delivery.

Overall, the study found that while the majority of Sub Health Centres had government-sanctioned buildings, many of these structures were reported to be in unsatisfactory conditions. Patients commonly raised concerns about small sizes, lack of privacy, limited waiting area capacity, and overall poor maintenance. Despite these issues, a significant proportion of respondents still perceived the buildings and rooms to be functional. However, it is crucial to address the presence of inadequate facilities for treating patients, emphasizing the need for immediate action to improve the physical infrastructure of the Sub Health Centres. The study reveals the significance of giving precedence to enhancing physical infrastructure of Sub Health Centres. Enhancing building conditions, sizes, privacy provisions, waiting area capacity, and overall maintenance can significantly contribute to improved healthcare delivery and enhanced patient satisfaction. A focus on creating more conducive environments for both beneficiaries and officials becomes important for ensuring the quality and effectiveness of services offered by Sub Health Centres.

Availability of support services: The findings based on the survey of 200 sub-centres and clinics reveal a mixed picture of the availability of support services in these healthcare facilities. It is encouraging to note that all the surveyed facilities had accessible toilets, indicating a commendable focus on hygiene and sanitation. Moreover, a significant majority, approximately 83.5 percent, had separate electricity connections, ensuring reliable power sources for medical equipment and lighting. However, the reliance on external power supply by 16.5 percent of facilities suggests room for improvement in ensuring uninterrupted electricity access.

Similarly, while about 73.5 percent of the surveyed facilities reported having separate water connections, the fact that the remaining 26.5 percent relied on alternative sources highlights the need for consistent access to clean water. Another notable finding is the limited availability of landline telephone connections, with only 5 percent of facilities equipped, potentially hindering communication for emergencies or consultations. On the medical equipment front, field visit revealed that all Sub Centres had examination tables, confirmed by 97 percent of respondents, indicating a basic level of infrastructure. However, the availability of delivery beds and equipment was less common, signalling potential challenges in providing maternal care services. Functional B.P. apparatuses and weighing scales were generally available,though the 13.5 percent non-functional weighing scales indicate the importance of regular maintenance. Additionally, the presence of sterilizer instruments in only 56.5percent of facilities suggests room for improvement in ensuring proper sterilization procedures. Overall, these findings underscore the need for ongoing efforts to enhance infrastructure and support services in sub-centres and clinics to ensure better healthcare delivery.

Manpower Availability

Field visits conducted to individual healthcare units revealed important insights into the staffing situation and highlights areas that require attention for efficient healthcare delivery.

1.Health and Wellness Officers: The upgraded Health and Wellness Centres(HWCs) all have designated Health and Wellness Officers or Community Health Officers/M.O(AYUSH). This indicates a positive step towards enhancing the capacity and range of healthcare services provided at these centres.

2.Auxiliary Nurse Midwives (ANMs): The presence of ANMs is crucial in sub- centres/clinics as they have a crucial role in delivering primary healthcare services. Among the sub-centres examined, 18 have one ANM assigned to them, while 15 have two ANMs. However, it is concerning that three sub-centres (Hrangchalkawn SHC- HWC, Luangmual SHC-HWC, and Zotuitlang SHC-HWC) currently lack any ANMs, which highlights the need for appropriate staffing in these areas to ensure adequate healthcare provision.

3. Male Multipurpose Workers (MPWs): Seventeen sub-centres/clinics lack male multipurpose workers (MPWs). MPWs play a significant role in addressing specific health needs and engaging with the community, particularly in providing healthcare services to men. The absence of MPWs in these sub-centres may limit the comprehensive coverage of healthcare services, particularly for male beneficiaries.

4. Fourth Grade/Attendants: All sub-centres, except Thakthing SHC Clinic and Ramhlun Venglai SHC-HWC, have at least one health attendant present. Health attendants contribute to the smooth functioning of sub-centres by supporting the overall operations and assisting healthcare providers.

The analysis highlights the presence of Health and Wellness Officers/M.O (AYUSH) in all the upgraded Health and Wellness Centres, signifying progress in enhancing healthcare services. However, attention is required to ensure adequate staffing in sub-centres/clinics, particularly in relation to ANMs and MPWs. The absence of ANMs in certain sub-centres and the lack of MPWs in several others indicate a need to address staffing gaps for optimal healthcare provision. It is essential to ensure that each sub-centre or clinic is equipped with the minimum essential health personnel, including ANMs, MPWs, and health attendants, to support efficient execution of their responsibilities and provide comprehensive primary healthcare services. (Refer to Table 6.2).

It is essential that each Sub Centre or Clinic is equipped with the minimum essential health personnel, namely, consisting of an Auxiliary Nurse Midwife (ANM), a Male Multipurpose Worker (MPW), and a Health Attendant to ensure the efficient execution of their responsibilities.

The availability of basic health services in the Sub Centre was assessed using different indicators:

1. Antenatal Services: The majority of expectant mothers were registered regularly (100 percent), indicating a positive aspect of the Sub Centre's antenatal care. The checking of weight and height had relatively high percentages (90.5 percent and 86.5 percent, respectively), but improvements can be made to ensure these checks are conducted for all expectant mothers. Blood pressure monitoring and abdominal examinations had higher percentages (94 percent and 95 percent, respectively), indicating good adherence to these essential antenatal services.

2. Disposable Kit Availability: The Disposable Kit's accessibility for delivery was reported to be low, with only 8.5 percent of respondents confirming the availability of all items. This highlights a significant gap that needs to be addressed to ensure safe and hygienic deliveries at the Sub Centre.

3. Routine Immunization and Vitamin/Supplement Distribution: Compliance with the Government Schedule for routine immunization services were reported by all respondents (100 percent), indicating a positive implementation of immunization programmes. 92 percent of respondents reported having access to vitamin A dietary supplements, IFA pills/syrup, and albendazole tablets, showing a fair amount of coverage for necessary supplements.

4. Treatment for every day, common ailments : Availability of treatment services varied across different conditions. Diarrhoea and dehydration treatment (ORS) was reported to be available by 77 percent of respondents, indicating moderate coverage for this common health issue. However, management of mild illnesses such as high temperature, cold, and coughing had a relatively lower availability (42 percent), suggesting the need for improvement in providing basic healthcare for common illnesses.

5. Malaria, TB, and Leprosy Treatment: Malaria treatment was reported to be available by 94.5 percent of respondents, indicating a strong presence of services for this specific disease. However, TB treatment availability was relatively low (29 percent), highlighting the need to strengthen services for this infectious disease. The majority of respondents (89 percent) reported the unavailability of treatment for Leprosy, indicating a significant gap in addressing this health issue.

6. Wound Treatment and NCD Services: Wound treatment and dressing facilities were available according to 67.5 percent of respondents, suggesting a moderate provision of services for wound care. NCD screening had a high reported availability (88 percent), indicating good efforts to address non-communicable diseases. However, the responsibility for providing NCD services was not clear, with varied responses from the respondents.

7. Covid Services: The research findings on COVID-19 services availability, reveal that, in the surveyed areas, Rapid Antigen Tests (RAT) for COVID-19 were available at the Sub Centres for 64 percent of respondents, with 51 percent confirming

that the tests were administered there in the Sub Centre itself. While 29 percent reported receiving RAT tests for free, 33.5 percent stated that they incurred charges. COVID- 19 vaccinations were predominantly administered at the Sub Centres (98 percent), often by health officials (91 percent). A minority (14.5 percent) mentioned vaccination fees, although the specific amounts were unknown. Notably, treatment for mild COVID-19 cases was typically not provided at Sub Centres (86 percent), but 61.5 percent indicated that these centres facilitated referrals for COVID-19 patients with more severe cases. Additionally, a substantial majority reported that medicines for mild COVID-19 cases were not provided for free (89 percent). However, arrangements for referring seriously ill COVID-19 patients for further treatment were largely unknown (11.5 percent) or not available (88.5 percent) at the Sub Centres. This data provides insights into the state of COVID-19 services and vaccination efforts in the surveyed regions.

Overall, the Sub Centres have made positive strides in providing essential healthcare services, particularly in antenatal care, immunization, and specific disease treatments. However, there are areas that require improvement, such as the availability of essential supplies and consistent provision of treatment services for common ailments and specific diseases like TB and Leprosy. Strengthening these areas would enhance the overall quality and comprehensiveness of medical treatments rendered by the Sub Centre.

Regarding referral services extended by the Sub Centre, it is vital to note that these centres deliver fundamental healthcare services at the community level in Mizoram. These services typically encompass essential medical care, immunizations, maternal and child healthcare provisions, as well as health education to cater to the needs of the local population. They also screen for common illnesses, treat them, and refer them.Sub Centres can treat basic health conditions, but patients may need expert care from higher-level healthcare providers. In such cases, patients are often referred to higher-level healthcare institutions. PHCs, CHCs, and district hospitals provide advanced medical services and have greater facilities and resources. Depending on severity and intricacy, Sub Centre health personnel are trained to evaluate patients and make appropriate recommendations. The patient is given documentation, direction, and aid to reach the specified healthcare institution for further examination and

treatment. Each Sub Centre's location and resources affect the referral process and healthcare services available.

The third research question is: iii. What are the different aspects of satisfaction of the people regarding the functioning of Sub Health Centres in Mizoram? During the field study, a survey was conducted among the 200 respondents to determine their satisfaction with operational efficiency and services provided by Sub Centres.

Patient satisfaction assumes paramount significance in shaping healthcare outcomes and service quality. The evaluation of healthcare system effectiveness gains unparalleled insight when viewed through the lens of patients' experiences. Their informed perspectives, forged through firsthand encounters, hold the key to pinpointing areas for enhancement, enriching service delivery, and ultimately refining the calibre of care dispensed.

The research conducted a survey among patients to assess their satisfaction with Sub Centres' operational efficiency and services. This was done using a custom-designed Beneficiaries' Satisfaction Index (BSI), consisting of six questions focused on aspects like Good Building, Cleanliness, Staff Attitude, Technical Competencies of Staff, Availability and Standard of Medicine, and Availability and Standard of Equipment. Respondents evaluated their satisfaction on a five-point ordinal scale, from "Very dissatisfied" to "Very satisfied," which was then converted into numerical scores from 0 to 100. The BSI was calculated using a formula.

The survey's outcomes, involving 200 beneficiaries, provided insightful perspectives on key aspects of healthcare delivery:

1. Positive Staff Attitude: An impressive 121 respondents expressed "Very Satisfied" sentiments about staff attitude, with an additional 57 respondents being "Somewhat Satisfied." This collective response signifies a commendable level of contentment with the healthcare staff's demeanour and interactions.

2. Technical Competency Confidence: The survey revealed 97 beneficiaries marked "Very Satisfied," and 86 respondents chose "Somewhat Satisfied" regarding the technical proficiency of the healthcare team. This distribution indicates a significant level of confidence in the team's skills and competencies, indicating that patients trust in the medical expertise provided.

3. Consideration for Availability and Standard of Medicines Supplied: While a substantial 155 individuals expressed varying degrees of satisfaction, with 88 being "Very Satisfied" and 67 being "Somewhat Satisfied," there were 30 who remained "Acceptable Satisfaction," 7 who were "Somewhat Dissatisfied," and 8 who were "Very Dissatisfied."This emphasizes the necessity of addressing concerns regarding medicine availabilityand quality to ensure overall contentment.

4. Significant Approval for Cleanliness: 60 respondents were "Very Satisfied" and 109 were "Somewhat Satisfied" with cleanliness standards. This underscores a strong commitment to hygiene norms in the healthcare setting.

5. Balanced Views on Equipment Availability and Standard: Regarding equipment availability and standard, satisfaction levels displayed a more evenly distributed pattern. Out of 200 responses, 51 were " Acceptable Satisfaction," 7 were "Somewhat Dissatisfied," and 4 were "Very Dissatisfied." This pattern underscores the need for closer scrutiny and potential enhancements in this area.

6. Room for Improvement in Building: Varied satisfaction levels concerning "Good Building" indicated the potential for enhancing physical infrastructure in line with beneficiary expectations.

The overall Beneficiaries Satisfaction Index (BSI) score of 6.16 indicates a generally positive sentiment among patients regarding the operational efficiency and services provided by the Sub Centres. This score highlights that patients were generally quite satisfied with the operational efficiency and services of the Sub Centres. Notably, the survey revealed higher satisfaction levels in staff attitude and competencies, among other factors. The BSI serves as a strategic tool guiding stakeholders to pinpoint and prioritize areas for improvement based on the diverse levels of satisfaction witnessed among beneficiaries. It is evident that the survey's outcomes provide valuable insights for enhancing patient satisfaction and healthcare service delivery.

To gain deeper insights into patient satisfaction dynamics, the Relative Importance Index (RII) was employed. This RII systematically assessed the relative importance of various factors driving beneficiaries' satisfaction within the healthcare system. By assigning each factor a rank based on its impact, the RII provides a methodical approach to understanding patient satisfaction nuances. RII of

Beneficiaries Satisfaction Scores highlights the relative importance of various factors in influencing patient satisfaction.

Insights from Ranking Analysis:

1. Staff Attitude (Rank 1): With the highest RII of 0.88, staff attitude stands out as the most influential factor. This underlines the paramount role of courteous and compassionate staff interactions in shaping patients' overall satisfaction. The high score indicates the significance of fostering positive patient-provider relationships.

2. Technical Competencies (Rank 2): Ranking second with an RII of 0.86, the technical competencies of the healthcare team significantly impact patient satisfaction. This reinforces the importance of proficient and skilled professionals delivering effective healthcare services.

3. Availability and Standard of Medicine (Rank 3): Holding the third position with an RII of 0.82, the availability and quality of medicines play a pivotal role in patient contentment. The relatively high score suggests that accessible and effective medications are crucial for ensuring patient satisfaction.

4. Cleanliness (Rank 4): With a RII of 0.81, cleanliness closely follows in the ranking. This underscores the substantial impact of a hygienic and sanitized healthcare environment on patient well-being and satisfaction. Cleanliness cultivates trust and a positive perception of the healthcare facility.

5. Availability and Standard of Equipments (Rank 5):Ranking fifth with a RII of 0.76, the availability and standard of equipment moderately contribute to patient satisfaction. Ensuring adequate equipment accessibility, functionality, and maintenance is important for a seamless patient experience.

6. Good Building (Rank 6): The physical infrastructure ranks lowest with a RII of 0.74, indicating its comparatively smaller impact on patient satisfaction. Improving aspects such as the quality, aesthetics, and accessibility of the facility's physical environment can positively influence patient perceptions.

The lower RII for the quality of the building (Rank 6) highlights the need for infrastructure upgrades, fostering a comfortable patient-centric environment. Addressing the relatively lower RII of equipment standards (Rank 5) entails focusing on maintenance, timely repairs, and accessibility to elevate patient care experiences. The imperative of consistent, quality medicine supplies (Rank 4) shows the

necessity to ensure reliable availability and effectiveness for patient well-being. While staff attitude (Rank 1) and technical competencies (Rank 2) exhibit higher RIIs, their sustained impact hinges on continuous training and development efforts, which harmoniously strengthen positive patient interactions and outcomes.

The analysis reveals that patient satisfaction is shaped by a combination of factors, including staff attitude, technical expertise, medicine availability, cleanliness, equipment functionality, and facility aesthetics. Addressing these factors is key to enhancing patient experiences, building trust, and improving overall satisfaction levels. By prioritizing improvements in these aspects and tackling the challenges identified, healthcare providers can create a patient-centric environment that fosters positive outcomes and lasting impressions.

The fourth research question is as follows: What are the problems, challenges, and remedial measures for more efficient functioning Sub Health Centres in Mizoram? It is essential to consider that when rendering services at sites such as Sub-Centres/Health Wellness Centres, situated in close proximity to the populace, numerous challenges emerge due to the notable influence they have on people's lives. Also, healthcare service delivery is a costly affair requiring huge amounts of funds for providing resources, supplies, and manpower.

A few of the more noticeable difficulties and challenges encountered by sub-Health Centres in Mizoram encompass:

(i) Poor Location: Many Sub Centres/Health and Wellness Centres in Mizoram are tucked away in awkward corners and bends, making them challenging to access, especially during inclement weather conditions. Even though some of the health units are situated along the main roadsides and are mostly connected by motorable roads, the lack of compound and adequate parking areas exacerbates the problem, causing inconvenience and potential delays in receiving medical care. While the Tanhril Health and Wellness Centre located in Aizawl, as well as the Pukpui Health and Wellness Centre situated in Lunglei, serve as commendable examples with their ideal locations and spacious compounds, the majority of Sub Centres face a significant hurdle. Moreover, both of these health units, as previously mentioned, are located at a significant distance from the central area of the locality, thereby posing challenges in terms of accessibility. The inconvenient location of Sub Centres hampers timely

access to healthcare services, potentially affecting patient outcomes. Patients may face difficulties navigating through congested or hard-to-reach areas. This situation inconveniences patients and poses challenges for healthcare providers in delivering timely and efficient care.

(ii) Inadequate infrastructure for the effective provision of healthcare services: While most of the Sub Centres/Health and Wellness Centres selected for study are housed in separate government buildings. However, a significant challenge lies in the size of these Sub Centre buildings. These circumstances pose a considerable inconvenience, particularly on routine vaccination days when there is limited room to provide seating for waiting patients. The inability to accommodate patients due to cramped space is one of the reasons why Covid vaccines could not be given in the Sub Centre Buildings itself because the buildings just cannot accommodate more than 5-6 patients at one time[321]. Most Sub Centre buildings lack the capacity to accommodate a considerable influx of patients at any given time. Consequently, individuals seeking healthcare services are compelled to endure their waiting periods without adequate seating arrangements, creating discomfort and inconvenience during their visit.

In Mizoram, while most Sub-Centres have their own government-designated buildings, the situation differs for Sub Centre Clinics. These clinics are primarily housed in NGO/Local Body buildings or rented private buildings, with only a few having their own government-designated structures. It is worth highlighting that Sub Centre Clinics are unique to Mizoram and are not found outside the state.

Clinics located in Local Council and YMA Hall/House premises are exempt from paying rent. However, those situated in rented private buildings rely on community contributions to cover the rental expenses. Families within the community contribute funds to meet the rent costs since the government does not provide financial support in this regard. While this arrangement reflects exemplary community participation and unity, it can also negatively impact the reputation of the concerned department and lead to operational challenges, especially when clinics are accommodated in private buildings.

[321] Based on an interview with Clady P.C Zothankhumi, Health and Wellness Officer, Hrangchalkawn Health and Wellness Centre on 22.06.23

(iii) Insufficient Support Services: Support Services and requirements encompass vital elements such as access to clean water connection, reliable electricity supply, proper toilet facilities, examination beds, delivery beds, essential delivery equipment, a landline telephone, a B.P apparatus for measuring blood pressure, a weighing scale, and a sterilizer for keeping apparatuses sterile and also maintaining hygiene. These fundamental facilities contribute significantly to the success of Sub Centres in providing for the health care requirements of the people they serve. The Sub Centres/Clinics encounter certain challenges and issues stemming from the insufficient availability of fundamental necessities and support facilities:

a. Inadequate Access to Clean Water Connection and Reliable Electricity Supply: While some sub-centres have dedicated electric and water connections, others, particularly those accommodated in local council/village council houses or attached to YMA Halls, face challenges as they rely on sharing water and electric connections from the local bodies and NGOs. Additionally, certain sub-centres lack a regular source of water and may rely on sharing connections from local churches or from neighbouring households. This limited access to basic needs like clean water connection and unreliable electricity supply significantly hampers the smooth functioning of these facilities, compromising the quality of healthcare services provided.

b. Lack of Essential Delivery Equipment and Delivery Beds:

Based on analysis of the field study and corroborated through observations of the health units reveal a concerning disparity in the availability of delivery beds and equipment at sub-centres. Unfortunately, only a few of these facilities have the necessary resources to guarantee safe and efficient deliveries, highlighting a significant gap regarding the provision of adequate neonatal and maternal health care. Although it is recognized that sub-centres are not primarily responsible for conducting deliveries, it remains essential that they possess sufficient resources to manage unforeseen emergencies. The lack of appropriate delivery equipment poses a significant risk to the well-being and safety of expectant mothers and their infants, making it difficult to provide necessary care during the crucial process of giving birth if such an emergency should arise. Addressing this notable discrepancy is essential to

guarantee that sub-centres are prepared to offer the required assistance if and when required, to protect the well-being of both mothers and their vulnerable newborns.

c. Issues with essential equipment:

During the survey, it was encouraging to find that all surveyed sub-centres had functional blood pressure (B.P.) apparatus, signifying that healthcare professionals had access to the necessary equipment to accurately measure blood pressure. However, it was disconcerting to discover that a small percentage (13.5 percent) of respondents noted issues with the weighing scales, with some patients even expressing that the scales had been non-functional for an extended period. Also, the inadequate provision of weighing scales, with only one available in certain sub- centres, proved insufficient to cater to the requirements of the entire populace. These issues pertaining to weighing scales can have a detrimental impact on the efficient provision of healthcare services, especially within the context of monitoring and managing weight-related conditions among patients. Moreover, this concern may be indicative of broader challenges related to the maintenance and repair of essential equipment in the sub-centres, potentially compromising the overall effectiveness of service delivery. Addressing these equipment-related issues becomes crucial to ensure seamless healthcare provision and to maintain quality healthcare.

iv. Lack of Sterilizing Instruments and Insufficient Storage Facilities:

Several sub-centres/clinics do not have the necessary sterilizing instruments, which are crucial for maintaining hygiene and sterility, especially for infection prevention and control. As a result, healthcare workers resort to sterilizing instruments by boiling. Moreover, these healthcare facilities lack refrigeration equipment, like fridges/freezers, which are occasionally essential for preserving vaccines, vitamins, and medications at the required temperature. Insufficient storage facilities such as cupboards and almirahs further exacerbate the challenges faced by these health units, leading to disorganization and inefficiency in managing medical supplies. Certain communities, such as Republic Vengthlang, have been notably supportive and concerned, with the Local Council contributing amenities like refrigerators and cabinets to their Sub Centre Clinic[322].

[322] Interviews with ASHAs in Republic Vengthlang on 18.07.2023

v. Lack of sufficient or proper provisioning of resources and essential medications: Shortage or insufficient provisioning of resources and vital medications pose a significant challenge for sub centres, impacting their ability to provide adequate healthcare services. These sub centres often face a shortage of essential medicines required for treating common ailments, and in some cases, they even lack sufficient supplies for addressing more serious conditions like malaria, tuberculosis, emergency pills etc. Additionally, these sub centres are responsible for conducting screenings for non-communicable diseases (NCDs), such as diabetes, but they struggle with the lack of adequate supplies, particularly when it comes to acquiring glucose testing strips. In certain instances, health workers are compelled to purchase diabetes test strips from the local market due to their inadequate availability of government supplies which places an additional burden on patients who have to bear the cost of these essential supplies[323]. The lack of a sufficient supply of diabetes test strips undermines the accessibility and affordability of healthcare services for diabetic patients, potentially compromising their ability to monitor and manage their condition effectively.

The scarcity of essential medicines and supplies in sub centres hampers their ability to deliver comprehensive healthcare services to the communities they serve. A sub centre serves as a crucial first point of contact for many individuals seeking medical assistance, especially in remote or underprivileged areas where access to larger healthcare facilities may be limited. Therefore, the availability of essential medicines and supplies at sub centres is vital for diagnosing and treating common ailments promptly, preventing further complications, and ensuring the well-being of the community members.

An inadequate supply of critical medicines not only impacts the sub centres' capacity to address immediate health concerns but also poses a significant risk to public health on a broader scale. Insufficient resources for managing diseases like malaria and tuberculosis can result in delayed or ineffective treatment, potentially leading to the spread of these illnesses within the community. Besides, the lack of necessary screening tools, such as glucose testing strips for diabetes, compromises

[323] Personal interview with Pu Latea, Health Supervisor, Ngentiang who has a permanent residence in Republic Vengthleng and had worked as a MPW for a long time on 18.07.23

the sub centres' ability to identify and manage chronic conditions, placing individuals at an increased risk of complications and reduced quality of life.

(vi) The lack of emergency first aid materials for treating injuries (such as stitches, suturing, dressing, and allergies) constitutes additional difficulties encountered by the Sub Centre/Clinics. Regarding treatment and dressing of wounds and injuries, based on the field study consisting of 200 sample beneficiaries, only 34 percent of respondents reported having all items of the first aid kit, indicating a lack of consistent and complete availability of necessary materials. Additionally, 52.5 percent of respondents mentioned only some items were available, suggesting that sub-centres often lack essential supplies required for emergency care. This scarcity of first aid materials hinders the ability to provide immediate and appropriate care to patients. The study also highlighted concerns about the quality of treatment and dressing of wounds in sub-centres. While 50.5 percent of respondents said they had received the required care and dressing, 28.5 percent said they had only done so sometimes, casting questions on the validity and efficacy of the wound care services offered by sub-centres. The presence of a significant disparity in delivering essential healthcare services is evident through the responses of 3.5 percent of patients who indicated receiving only surface-level treatment for wounds, as well as the 10.5 percent of patients who reported that wound treatment was not available at their respective sub-centres.

Although the majority of Sub Centres have emergency first aid supplies for treating injuries, the Sub Centre Clinics do not have enough of these supplies. These emergency first aid supplies for procedures like sutures, suturing, and dressing are purchased in certain communities by local bodies and NGOs, who then donate them to the Clinics[324]. The insufficient availability of emergency first aid materials and inconsistency in wound care services can have serious consequences for patients. In emergency situations, the lack of necessary supplies can lead to delays in providing critical care, potentially exacerbating injuries or illnesses. Inadequate treatment and

[324] Interview with Pu Latea,Health Supervisor,Ngentiang on 18.07.23

dressing can result in infections, complications, and delayed healing, further compromising the well-being of patients.

(iv)Issues in implementing Telemedicine: The introduction of teleconsultation after the conversion of Sub Centres into Health and Wellness Centres has been a significant advancement, but only in theory because the application portion has some difficulties that are possibly caused by the fact that the programme is still in its early stages and will become more practical as time goes on and more work is put into it. One major challenge hindering its practicability is the issue of internet connectivity. In many remote rural areas, internet infrastructure is limited or unreliable. This lack of stable internet access poses a significant barrier to conducting effective teleconsultations, as it requires a robust and uninterrupted connection for smooth communication between healthcare providers and patients. The poor internet connectivity in these areas creates difficulties in establishing real-time audio or video connections, leading to disruptions, delays, and potential loss of vital medical information.

(iv) Issues relating to ASHAs: ASHAs play an important and commendable role in a variety of communities by promoting vaccinations, referrals, and accompanying services for reproductive and child health programmes, as well as providing information, guidance, and building awareness on issues related to health including nutrient intake, fundamental hygiene and cleanliness, present medical amenities offered by the sub-centre or clinic, and existing health determinants. Although these ASHAs have a positive working connection with the health workers and take part in every single one of the programmes of the Sub Centre or Clinic, which involves taking an active part in the Health and Nutrition Day, they still experience a certain level of tension in their jobs due to the fact that the incentives that are offered their way do not seem in accordance with the amount of work that they are expected to do[325]. ASHAs are officially considered to work as part-time community health workers, with an assured allowance of Rs 2000[326] and additional performance-based

[325] Based on personal interviews with ASHAs in Venghnuai, Republic Vengthlang and Lawipu on 28.10.2018 and 30.10.2018 respectively.

[326] Mizoram Legislative Assembly,Starred Question for Eleventh Session: February,2023,also available on https://nhm.gov.in/images/pdf/communitisation/task-group-reports/guidelines-on-asha.pdf pp.14.

payments. However, the reality is that their workload often extends far beyond part-time hours. ASHAs find themselves compelled to allocate most of their time to their responsibilities, leaving them with little or no opportunity to pursue alternative livelihoods effectively. This contradicts the intended design of their work, which was meant to allow them to engage in other sources of income.

While the performance-based payments are meant to provide additional monetary support, they are often deemed insufficient considering the substantial time and effort ASHAs invest in their duties. The disparity between the perceived part-time nature of their work and the demanding reality they face makes it evident that ASHAs are effectively working full-time but without adequate pay. This situation places ASHAs in a challenging position, as they struggle to meet their financial needs while fulfilling their responsibilities as community health workers.

Another issue relating to ASHAs' role as a grassroots linkage to the primary healthcare delivery system relates to their qualifications as well as the skill and capacity required for performing their duties. While it is ideal for ASHAs to have at least a minimum qualification of completing Class 10, it has been observed that some ASHAs possess lower educational qualifications, which can hinder their ability to effectively perform tasks, which could also entail some issues in record keeping. Insufficient qualifications may lead to challenges in accurately documenting healthcare information and maintaining comprehensive records.

MAJOR FINDINGS

In the preceding paragraphs, we have already explored various research findings while addressing our research questions. However, it is essential to highlight the key findings from the study in a concise manner. Some of the more important findings of the research study are discussed briefly below:

Reproductive and Child Health (RCH) Services: One of the primary roles of Health Sub-Centres in Mizoram is to focus on Reproductive and Child Health (RCH) services. These services encompass a variety of interventions aimed at women and children, including family planning, counselling, provision of contraceptives, screening for sexually transmitted infections, prenatal and newborn care, and breastfeeding support. The presence of Auxiliary Nurse Midwives (ANMs) at these

centres ensure the availability of these services on all working days, both within the facility and through community outreach. Additionally, the Sub-Centres play a significant role in preventing and controlling childhood diseases such as malnutrition, infections, respiratory illnesses, diarrhoea, fever, and anaemia.

Routine Vaccination Services: Sub-Centres also provide routine immunization services to ensure that infants and children receive full immunization according to government guidelines. These centres employ name-based tracking to maintain comprehensive immunization coverage, identify adverse events following immunization (AEFI), and facilitate timely vaccinations.

Community Health Services: Sub-Centres in Mizoram provide comprehensive community health services, including school health programmes, outreach initiatives, and house-to-house surveys. School Health Services encompass health screenings, minor ailment treatment, immunizations, deworming, and addressing nutritional deficiencies. These services are delivered through scheduled visits to schools by trained healthcare professionals. Outreach/Field Services involve organizing Village Health and Nutrition Days (VHNDs) in collaboration with various stakeholders to promote health and nutrition awareness in local communities. House-to-House Surveys, conducted annually with community participation, gather health data, including morbidity and mortality statistics, and monitor demographic indicators. These services collectively aim to enhance the health and well-being of Mizoram's communities through preventive measures, early intervention, and data-driven healthcare planning.

Enhanced Role of Health Sub-Centres in Disease Management: One of the significant findings of the research highlights the role of Health Sub-Centres and Clinics in managing both communicable and non-communicable diseases. These healthcare facilities have evolved to encompass provisions for a wide range of health concerns, with a core emphasis on promoting preventive healthcare through awareness dissemination, well-informed advice, and guidance and counseling when necessary. This transition in the role of Health Sub-Centres becomes particularly evident with the

shift towards Health and Wellness Centres, highlighting their crucial role in addressing various health challenges within their communities.

Meticulous Record-Keeping: Health Sub-Centres maintain comprehensive records, including patient records, survey data, immunization records, maternal and child health records, medication records, and various reporting and statistical records. These records are critical for monitoring health indicators, disease surveillance, programme performance evaluation, and financial and administrative aspects.

Participation in National Health Programmes: Health Sub-Centres in Mizoram actively participate in national health programmes, both for communicable and non-communicable diseases. Their contributions to these programmes include activities related to the National AIDS Control Programme, National Vector Borne Disease Control Programme, National Leprosy Eradication Programme, Revised National Tuberculosis Control Programme, and various other initiatives aimed at preventing, managing, and eradicating diseases.

Health Sub-Centre Clinics in Mizoram: In Mizoram, Health Sub-Centre Clinics play a crucial role in providing primary healthcare services to local communities, known as "vengs." These clinics operate under a parent Health Sub-Centres and serve as essential healthcare access points. However, their establishment lacks standardized guidelines, leading to diverse modes of operation, supply sourcing, and accommodation standards across districts and localities. Some clinics procure medical supplies centrally or through parent centres, while others rely on local resources and parent Sub-Centres. These clinics function without dedicated buildings, are accommodated mostly in community-owned buildings. The setup of these clinics is driven by local leaders to ensure proximity to healthcare services, although resource disparities can pose challenges. This unique system highlights the importance of context-specific healthcare solutions while showing also the need for balanced resource allocation and consistent standards to ensure efficient and effective healthcare delivery.

Intranatal Care and Delivery Points:Unlike the national classification system for Sub-Centres (Type A and Type B), Mizoram does not employ such categorization.Instead, a few Sub-Centres, primarily in rural areas, are fully equipped to provide intranatal services, referred to as delivery points. However, most Sub-Centres possess basic facilities to manage unexpected birth emergencies, and healthcare professionals at these centres are trained to handle routine childbirths. The majority of beneficiaries opt forgiving birth in hospitals, whether public or private, due to better facilities and accessibility. Nevertheless, there exists an opportunity for improvement to ensure that all Sub- Centres and clinics in Mizoram are prepared to handle deliveries in emergency situations.

Transition to Health and Wellness Centres: The introduction of Ayushman Bharat- Health and Wellness Centres (AB-HWCs) signifies a significant shift towards providing comprehensive primary healthcare services. Many Health Sub-Centres have evolved into Health and Wellness Centres, broadening their scope beyond maternal and child healthcare to encompass non-communicable diseases, palliative and rehabilitative care, oral, eye, and ear care, mental health support, and more. These centres offer critical medications and diagnostic services free of charge, with the aim of providing a more extensive range of healthcare services to the entire population within their area of operation. This transition places a heightened emphasis on health prevention and promotion.

Role of ASHAs in Primary Healthcare: Accredited Social Health Activists (ASHAs) constitute an essential element of primary healthcare at the Sub-Centre level in Mizoram. These female community health activists serve as a vital link between the community and the public health system. ASHAs perform various roles, including promoting immunization, providing referral services, educating the community about health determinants such as nutrition and hygiene, and raising awareness about available healthcare services. However, ASHAs face challenges related to their compensation structure. They are often considered volunteers rather than formal workers, leading to issues related to income stability and recognition. Recognizing

ASHA workers as "health workers" could enhance their morale, dignity, and security, ultimately improving their effectiveness in serving their communities.

Infrastructure Challenges in Sub Health Centres: A study on Sub Health Centres (SHCs) in Mizoram unveiled key findings related to the physical infrastructure. While most SHCs are situated in government-designated buildings, patient satisfaction with these facilities is relatively low. Issues such as small sizes, a lack of separate examination rooms, limited waiting area capacity, and poor maintenance were commonly reported concerns. Improving the physical infrastructure of SHCs is crucial to enhance healthcare delivery and patient satisfaction. Creating more conducive environments for both beneficiaries and healthcare providers can significantly contribute to the quality and effectiveness of services offered by Sub Health Centres.

Availability of Support Services: The survey of 200 sub-centres and clinics revealed a mixed picture of support service availability. All surveyed facilities had accessible toilets, highlighting a commendable focus on hygiene and sanitation. Approximately 83.5 percent had separate electricity connections, ensuring reliable power sources for medical equipment. However, 16.5 percent relied on external power supply, indicating room for improvement in uninterrupted electricity access. About 73.5 percent reported separate water connections, but 26.5 percent relied on alternativesources, emphasizing the need for consistent access to clean water. Only 5 percent hadlandline telephone connections, potentially hindering communication for emergencies. The availability of medical equipment varied, with examination tables universally present but delivery beds and sterilizer instruments less commonly available.

Manpower Availability: Field visits revealed insights into staffing, highlighting areas requiring attention for efficient healthcare delivery. Health and Wellness Officers were present in all upgraded Health and Wellness Centres, enhancing service capacity. However, some sub-centres lacked Auxiliary Nurse Midwives (ANMs) and Male Multipurpose Workers (MPWs), emphasizing the need for appropriate staffing to ensure adequate healthcare provision. Health attendants were generally available, contributing to the smooth functioning of sub-centres.

Availability of Basic Services Using Various Indicators:

- Antenatal services were generally well-implemented, with expectant mothers regularly registered, though improvements in height and weight checks are needed.
- The availability of disposable kits for delivery was low, indicating a significant gap in ensuring safe and hygienic deliveries.
- Compliance with the Government Schedule for routine immunization services was high, and access to necessary supplements was reported by 92 percent of respondents.
- Availability of treatment services for common ailments varied, with moderate coverage of diarrhoea and dehydration treatment but room for improvement in addressing common illnesses.
- Availability of TB treatment was relatively low, and treatment for leprosy was reported as unavailable, indicating gaps in addressing these diseases.
- NCD screening had a high reported availability, but the responsibility for providing NCD services was not clear, with varied responses from respondents.
- Wound treatment and dressing facilities were available to some extent.

Referral Services: Sub-centres provide fundamental healthcare services at the community level but often refer patients to higher-level healthcare institutions like PHCs, CHCs, and district hospitals for advanced care. The referral process depends on the severity and complexity of the patient's condition, with Sub Centre health personnel evaluating patients and providing guidance and aid for reaching specified healthcare institutions.

Findings on Patient Satisfaction: The research conducted a comprehensive survey among 200 respondents to assess their satisfaction with Sub Health Centres in Mizoram. The Beneficiaries' Satisfaction Index (BSI) revealed an overall positive sentiment, with notable satisfaction in staff attitude and technical competencies. Cleanliness standards were also well-received. However, concerns arose regarding

medicine availability and equipment quality, suggesting areas for improvement. Building conditions exhibited varying satisfaction levels. The Relative Importance Index (RII) highlighted that staff attitude had the greatest impact on satisfaction, followed by technical competencies, medicine availability, cleanliness, equipment quality, and building conditions. These findings emphasize the multifaceted nature of patient satisfaction and the importance of addressing these factors to enhance patient experiences and overall contentment.

Findings on Problems, Challenges, and Remedial Measures for Sub Health Centres: The research uncovered several critical challenges facing Sub Health Centres in Mizoram. These challenges include poor location, inadequate infrastructure, insufficient support services like clean water and electricity, limited access to essential medical equipment, and a lack of emergency first aid materials for treating injuries. The scarcity of essential medicines and supplies, particularly for chronic conditions like diabetes, also poses a significant problem. Additionally, issues with implementing telemedicine, particularly related to poor internet connectivity in remote areas, hinder the effectiveness of healthcare delivery. Problems related to Accredited Social Health Activists (ASHAs), including inadequate compensation and educational qualifications, further compound the challenges faced by Sub Health Centres. Addressing these issues is crucial to improving the efficiency and effectiveness of Sub Health Centres in Mizoram and ensuring that they can provide quality healthcare services to the communities they serve.

REMEDIAL MEASURES

The following remedial measures can be considered in light of the findings:

1. One cost-effective remedial measure for addressing the challenges of poor location and small-sized buildings in Sub Centres/Health and Wellness Centres in Mizoram is the establishment of mobile health clinics. These clinics can be equipped with basic medical facilities and run by healthcare professionals of the Sub Centres who can travel to different parts of the locality, including remote or difficult-to-access locations. By bringing primary healthcare services still closer to the communities, mobile clinics can overcome the obstacles posed by poor location and limited building space. The government can consider utilizing mobile health clinics

primarily during vaccine days and for providing annual Non-Communicable Disease (NCD) screenings. By strategically deploying these mobile clinics on specific days, the government can ensure that essential immunization programmes reach remote areas, addressing the challenge of poor location and limited space. Furthermore, conducting NCD screenings through mobile health clinics can help identify and manage chronic diseases at an early stage, improving overall community health.

2. To ensure the effective functioning of health sub-centres/clinics in Mizoram, it is essential for the government to provide them within government-owned buildings in easily accessible locations. This eliminates reliance on NGOs and local bodies for accommodation or community contributions. The government's responsibility is to establish the necessary infrastructure to provide primary healthcare services. Providing government-owned buildings for health sub-centres offers several benefits, including a more stable and secure location for healthcare units, enhanced credibility and reliability, and strategic location in areas with maximum accessibility. Government accountability is also crucial, as the primary provider of healthcare services may take the lead in ensuring appropriate infrastructure is in place. To effectively implement this initiative, the government may need to allocate additional funds for constructing, renovating, or repurposing buildings to suit the needs of health sub-centres. Collaborations with relevant departments, such as public works or urban planning, can facilitate the identification and conversion of suitable government-owned spaces into functional healthcare units

3. The research highlighted the availability of Health and Wellness Officers and M.O(AYUSH) in the upgraded Health and Wellness Centres, which suggests progress in the enhancement of healthcare services. However, it is crucial to highlight the importance of adequately allocating human resources in sub-centres/clinics. The evident absence of Auxiliary Nurse Midwives (ANMs) in specific sub-centres, coupled with a significant lack of Multipurpose Workers (MPWs) in several others, highlights the urgent need to address staffing inadequacies to guarantee the delivery of healthcare services at an optimal standard. Ensuring that each sub-centre or clinic is sufficiently equipped with the necessary minimum essential health personnel, including Auxiliary Nurse Midwives (ANMs), Multipurpose Workers

(MPWs), and health attendants, is crucial to facilitate the effective execution of their responsibilities and provide comprehensive primary healthcare services. (Please refer to Table 6.2).Ensuring the effective execution of their respective responsibilities necessitates the provision of essential health personnel, namely, an Auxiliary Nurse Midwife (ANM), a Male Multipurpose Worker (MPW), and a Health Attendant, in every Sub Centre or Clinic.

4. Dedicated Water Connection and Reliable Electricity Supply: To address the challenge of insufficient access to clean water and electricity supply, the government may prioritize providing dedicated water and electric connections to all sub-centres. This can be achieved through collaboration with relevant utility providers and local authorities. Additionally, alternative power solutions such as solar panels or backup generators can be considered to ensure a consistent and reliable electricity supply. These measures will enhance the functionality of sub-centres and enable healthcare providers to deliver quality services without interruptions.

5. In order to address the lack of delivery beds and equipment, the government may allocate resources to equip sub-centres with essential delivery equipment. This includes providing delivery beds, delivery kits, and emergency supplies for maternal and newborn care. Collaborating with higher levels of healthcare in maternal and newborn health can help ensure that sub- centres have the necessary resources to handle unexpected emergencies and provide comprehensive care during childbirth.

6. To address the issues related to essential equipment such as weighing scales, BP Apparatus etc., it is important to ensure regular maintenance and repair services for all equipment in sub-centres. The government may establish a system for periodic inspections and maintenance of equipment to ensure their proper functioning. Additionally, providing adequate and functional apparatus and equipment in all sub-centres, based on the population's needs, will enable accurate monitoring and management of everyday health issues especially those related to maternal and child care as well as NCDs.

7. To address the lack of sterilizing instruments and insufficient storage facilities, the government may prioritize the provision of necessary sterilizing equipment in all sub-centres. This includes autoclaves or other sterilization methods that are efficient and comply with infection control standards. Autoclaves are devices used for sterilizing equipment and supplies by subjecting them to high-pressure saturated steam. They are essential in healthcare settings to ensure the elimination of microorganisms and maintain proper infection control. The prices of autoclaves in Indian rupees can vary depending on various factors such as size, capacity, brand, and features. Generally, smaller tabletop autoclaves suitable for smaller clinics or facilities can range from around ₹20,000 to ₹1,00,000 or more. Furthermore, ensuring the availability of refrigeration facilities such as fridges or freezers will help maintain the integrity of vaccines, vitamins, and medicines. Adequate storage facilities like cupboards and almirahs may also be provided to organize and store medical supplies efficiently.

8. Addressing the issue of insufficient supply of resources and critical medicines at sub centres requires a multifaceted approach. It involves recognizing the importance of sub centres as primary healthcare providers and prioritizing the allocation of necessary resources to these facilities. This includes adequate funding, supply chain management, and training programmes to enhance the capacity of sub-centres in managing and maintaining their essential inventories. Collaborative efforts between government authorities, healthcare organizations, and local communities are crucial in identifying and addressing these resource gaps, ensuring the provision of quality healthcare services at the grassroots level. The government could consider implementing the following remedial measures

a. Strengthen Supply Chain Management: The government may focuson improving the supply chain management system for essential medicines and critical supplies. This includes efficient procurement processes, regular monitoring of stock levels, and establishing reliable distribution channels to sub-centres. Proper forecasting of medicine requirements based on the population served can help prevent shortages and ensure timely availability.

b. Collaborate with Pharmaceutical Companies: The government can collaborate with pharmaceutical companies to ensure a consistent supply of essential medicines to sub-centres. Establishing partnerships can help secure discounted rates or special arrangements to ensure a continuous supply of critical medicines. These collaborations can also include the provision of free or subsidized medicines for certain high-priority diseases.

c. Capacity Building and Training: Providing training to sub-centre staff on efficient inventory management and supply chain practices can optimize the utilization of available resources. Training programmes can focus on aspects such as forecasting, inventory control, and proper storage of medicines to prevent wastage and stockouts.

d. Strengthen Monitoring and Accountability: Implementing robust monitoring mechanisms to track medicine availability and usage at sub- centres is essential. Regular audits can help identify gaps, address issues promptly, and hold responsible parties accountable for maintaining an adequate supply of medicines. This can involve regular reporting from sub- centres to higher authorities regarding medicine stock levels and consumption patterns.

e. Collaboration with Non-Governmental Organizations (NGOs): The government can collaborate with NGOs specializing in healthcare and pharmaceuticals to supplement the supply of critical medicines and resources. These partnerships can help bridge the gaps in supply and ensure that sub centres have access to essential medicines, particularly in remote or underserved areas.

f. Creation of Generic Medicine Outlets: The government can explore the possibility of establishing generic medicine outlets at sub centres. These outlets can sell high-quality generic medicines that are not supplied free by the sub centre at significantly reduced prices to ensure affordability and accessibility. This effort has the potential to be implemented within existing frameworks such as the Jan AushadhiScheme in India, which is designed to facilitate the accessibility of generic medications at reasonable prices.Sub centre staff can manage and operate these outlets, providing access to cheaper medicines to the community members. It is

imperative for the government to guarantee the availability of important and crucial medications in proper quantities, and dose forms, and with reliable quality and comprehensive information. It is important to ensure the timely administration of all medications, particularly those prescribed for tuberculosis, malaria, and emergency contraception. Failing to provide these treatments promptly or delaying their administration might have detrimental consequences since adherence plays a crucial role in achieving optimal treatment outcomes.

9. To address the challenge of the unavailability of emergency first aid materials and inconsistencies in wound care services, comprehensive remedial measures are needed. The government may ensure that all Sub Centres are equipped with well-stocked first aid kits containing essential supplies. Regular monitoring and prompt replenishment of missing items may be implemented. Training programmes can enhance healthcare professionals' knowledge and skills in wound care management, emphasizing infection prevention and control. Collaborations with local healthcare facilities can provide specialized support, while quality assurance mechanisms can ensure adherence to standardized protocols and guidelines. Regular supervision and evaluation can also help maintain standards and ensure the delivery of high- quality healthcare services in sub-centres. By implementing these measures, the government can improve the availability of emergency first aid materials and enhance the consistency and quality of wound care services in Sub Centres. This will enable timely and appropriate care, preventing complications and promoting the well-being of patients in need of emergency treatment.

10. It is crucial to acknowledge the existing problem of internet connectivity in remote areas, which has been one of the reasons cited for the lack of implementation of telemedicine for consultation purposes which has been put in place under e-Sanjeevani AB-HWC. To overcome this challenge, the government can explore various options. One approach is to establish telemedicine consultation centres equipped with reliable internet connectivity in Sub Centres having central locations within each district. These centres can serve as hubs for patients to connect with healthcare professionals remotely. Additionally, initiatives can be undertaken to improve internet infrastructure in remote areas, such as expanding network coverage

or exploring alternative technologies like satellite-based internet solutions, ensuring that telemedicine consultations are feasible and accessible for communities in need.

11. During our field study of 38 Sub Centres/Clinics, we noticed that a significant portion of these facilities—26 in total—currently lack Staff Quarters. In light of this observation, a beneficial improvement would be to consider establishing staff quarters in close proximity to each Sub Centre/Clinic. By doing so, medical professionals would have the opportunity to reside nearby, ensuring the convenient availability of medical guidance and consultation, particularly in instances of urgent medical situations.. This approach recognizes the challenges associated with expecting these facilities to remain open 24X7 and offers a practical solution that benefits both the healthcare providers and the families in the community. By having medical staff readily available in the vicinity, the provision of timely and efficient healthcare services can be significantly improved. Families in the community would gain the assurance of having medical expertise within reach, especially during critical moments. This initiative not only fosters a sense of security but also strengthens the overall healthcare system and if implemented, can provide substantial advantages for the healthcare providers and the families in the community, resulting in a more efficient and responsive healthcare system.

12. To address the issue of inadequate income of the ASHAs requires a reassessment of their assured income to reflect the full-time nature of their work and the level of dedication required. Adequate remuneration can recognize and value the vital contributions of ASHAs, motivating them and ensuring their financial well-being while they continue to serve their communities. A fixed and adequate income would give them stability in a job where they spend between eight to twelve hours daily.

Also, ASHAs are recognised only as volunteers and not as legitimate government-employed health providers in their areas of functioning. ASHAs, although classified as volunteers, also serve as community health workers who are officially recruited by the Ministry of Health and Family Welfare under the National Health Mission. Recognising ASHAs as “health workers” would allow them pride, dignity and security and boost their morale, and help them to be taken more seriously

- by the government, the local leaders, the regular health workers and most importantly
- the patients, to whose needs they cater to, making their work all the more effective.

While ASHAs receive initial training, it is critical to prioritize ongoing training and capacity-building programmes to equip ASHAs with the skills they need for their effectiveness and professional growth. These programmes may target focused training on effective record keeping, data management, and using digital tools, to equip them with current. medical information in order to proficiently handle specific health issues within the field of their responsibilities. Training in counselling methods, behavior change communication, handling medical crises or critical first aid situations, and exposing them to pertinent digital tools and platforms may also be included. Their training may also involve instruction on telemedicine platforms for remote consultations, mobile data-gathering apps, or other technical advancements that can increase their effectiveness and reach.

By providing ASHAs with continuous training and capacity-building opportunities, they will be more well-informed, skilled, and capable of delivering quality healthcare services to their communities. Ongoing training not only strengthens their capabilities but also boosts their confidence, job satisfaction, and motivation, leading to improved overall performance and positive health outcomes.

13. The current record-keeping system at the sub-centre level in Mizoram, as per the IPHS guidelines, relies primarily on paper-based recording. However, this approach is time-consuming and resource-intensive. There are situations where Sub centres do not have enough Report Forms available, so health workers have to make photocopies of the forms. To address these issues, computer-based record keeping can be a viable alternative.

In this context, the government is working to modernize its record- keeping procedures by transitioning from manual paper records to digital databases[327]. This shift is motivated by the desire to streamline administrative processes and save time that was previously spent managing physical documents. However, an important

[327] Based on an interview with Pu Laltea, Health Supervisor, Ngentiang on 18.07.23

consideration arises regarding the allocation of responsibilities for entering data into these digital systems. This responsibility might fall on existing personnel, or there could be a need to train dedicated individuals for this task. The success of this transition will depend not only on the implementation of computer-based systems but also on ensuring that personnel are equipped with the necessary skills to manage and maintain these digital records effectively.

Computerized records offer benefits such as saving time and resources, easy data management, improved accessibility, reduced errors, data accuracy and economic and clinical advantages. They enable efficient storage, sorting, and retrieval of data, provide legible and consistent information, allow remote access and consultations, minimize errors through features like spell check and auto-fill, and enhance healthcare quality and efficiency.

Despite these advantages, the implementation of computer-based record keeping in Mizoram's sub-centres may face obstacles related to user acceptance, technical infrastructure, and legal/ethical considerations Due to familiarity, the convenience of use, or change reluctance, some users may prefer paper records. Sub centres may lack computers, internet, electricity, or software for computer-based record keeping. The necessary technical tools and support may be provided to sub-centres to enable computer-based record keeping. If technological issues arise, they may have backup strategies. Computer-based record keeping can raise questions of data ownership, privacy, confidentiality, and consent.

Overcoming these challenges requires informing and orienting users about the benefits of computer-based records, and requires addressing challenges related to health workers' computer literacy, providing necessary technological resources and support, ensuring compliance with record-keeping regulations, and upholding patient rights and confidentiality through ethical guidelines.

LIMITATIONS OF THE PRESENT RESEARCH

The present study, even though, is the first of its kind, in the context of the study of functioning of Sub Centres in Mizoram, has a number of limitations. These include the following:

-It is a time-bound academic and research work that has to follow the rules and regulations of completing the study.

-The areas covered, the number of Sub Health Centres brought under the study as well as the number of sample respondents could be enhanced for a better understanding of the issues and challenges provided time, resources, and facilities are available.

-Starting with one state in the northeastern region,i.e., Mizoram, a few more states in the region can be taken up for comparative study to arrive at broad, regional outputs and outcomes in healthcare administration

-Finally, a few more states in the PAN-Indian context can be taken up to study the healthcare scenario in India which would be beneficial for feedback and reforms in Indian healthcare administration at the grassroots level.

SIGNIFICANCE OF THE STUDY:

The significance of this study is multifaceted and holds significant importance in the domain of healthcare administration, social welfare administration, and public administration at large. Firstly, the theoretical findings, which delve into the historical perspectives of health administration in India, are of immense value. The study highlights insights from ancient texts such as the Vedas, Ayurveda, Buddhism, and Unani systems of medicine, shedding light on traditional health practices that emphasize leading healthy lifestyles, maintaining proper diets, the benefits of fasting, practicing moderation, and nurturing a healthy mind, body, and spirit. Moreover, the ancient wisdom places a profound emphasis on prevention rather than cure, a concept that resonates even in contemporary healthcare paradigms. These age-old

methodologies continue to be relevant today, offering timeless guidance for individuals seeking to lead healthier lives.

Also, the field study's findings reveal an interesting healthcare approach in Mizoram. The establishment of Health Clinics under parent Sub Centres, a unique practice exclusive to Mizoram and not prescribed by the Indian Public Health Standards (IPHS), is a noteworthy finding. This approach brings healthcare services closer to the people, enhancing accessibility. However, the study also stresses the essential caveat that a mere increase in the number of healthcare units does not necessarily equate to better healthcare. The quantitative expansion of health clinics may be complemented by qualitative enhancements, including improved equipment and facilities.

The satisfaction survey employing the Beneficiaries' Satisfaction Index (BSI) provides valuable insights into patient contentment. The overall positive sentiment, particularly regarding staff attitude and technical competencies, is encouraging. Cleanliness standards also received commendable feedback. However, concerns emerge regarding medicine availability and equipment quality, highlighting areas in need of improvement. Varying levels of satisfaction with building conditions emphasize the multifaceted nature of patient satisfaction. The Relative Importance Index (RII) analysis reaffirms the significance of staff attitude, followed by technical competencies, medicine availability, cleanliness, equipment quality, and building conditions in shaping patient satisfaction. These findings underline the intricate interplay of diverse factors and stress the importance of addressing them holistically to enhance patient experiences and overall contentment.

Moreover, this study offers concrete suggestions for ground-level improvements based on input from stakeholders, contributing to practical solutions that can positively impact healthcare administration. These suggestions hold the potential to address existing challenges and enhance the efficiency and effectiveness of healthcare services.

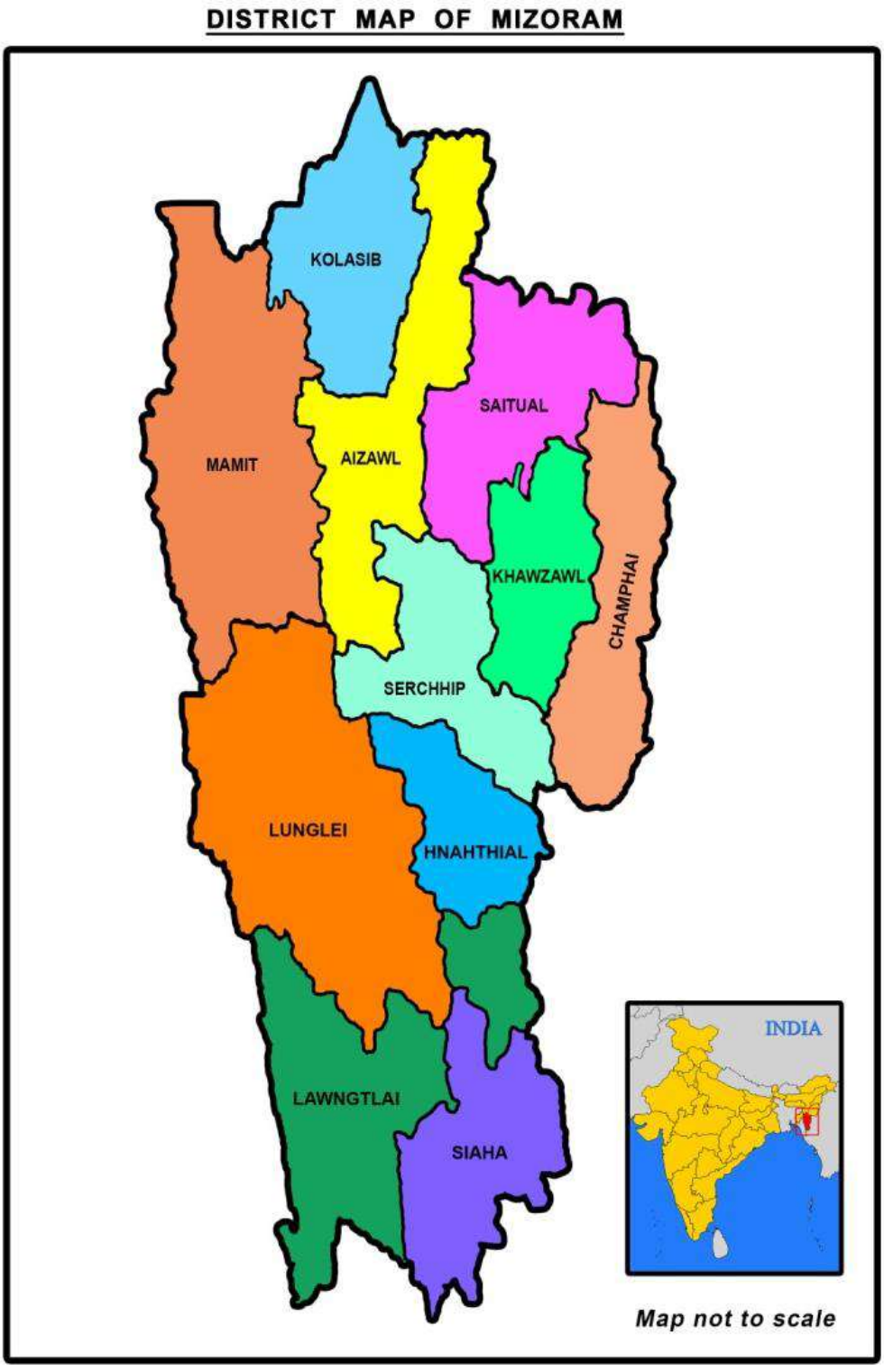
Lastly, the contributions of this study extend beyond healthcare administration. They encompass broader implications for social welfare administration and public administration in general. By drawing connections between historical health practices

and contemporary healthcare realities, the study bridges the gap between tradition and modernity. This synthesis offers a nuanced understanding of healthcare systems, underlining the importance of integrating time-tested wisdom with contemporary practices to promote overall well-being. Additionally, the study's insights into patient satisfaction and its multifaceted determinants provide valuable guidance for administrators seeking to improve service quality in various domains. Overall, this research makes substantial contributions to the fields of healthcare administration, social welfare administration, and public administration by offering a comprehensive perspective, practical recommendations for more effective primary healthcare delivery.

In conclusion, this research has shed light on the functioning of health sub-centres in Mizoram and their crucial role in delivering primary healthcare services to the population. Through a comprehensive analysis of various factors such as infrastructure, human resources, and service delivery, we have gained valuable insights into the strengths and limitations of these healthcare facilities. While health sub-centres have demonstrated commendable efforts in promoting healthcare accessibility and providing basic services, their effectiveness is hindered by various limitations. Addressing these limitations and investing in the development and strengthening of health sub-centres can significantly enhance their performance and contribute to improved healthcare outcomes in Mizoram. Future research may focuson exploring further sustainable solutions to overcome these challenges and further optimize the functioning of health sub-centres for the benefit of the population they serve.

APPENDICES

APPENDIX NO– I



Source: https://www.protocol.mizoram.gov.in/page/profile-of-mizoram accessed on 15.10.2023

APPENDIX NO. II

Ref : Beneficiaries/Patients

Format-1
Department of Public Administration, Mizoram University
Questionnaire

This Questionnaire has been prepared in connection with data collection for completing Ph.D research Work in the Department of Public Administration, Mizoram University. The data and information collected will be used only for academic purposes and will not be used in any manner by which privacy of the respondents will be revealed.

Sd/- Marie Zodinpuii,

Part I :
District : _____ Taluka :
Date :

1. Name of the locality_____
2. Name of Health Sub-Center/Health and Wellness Centre : _____
3.Total population covered by the Sub-Centre:_____
4. No. of villages which come under the Sub-Centre _____
5.Whether the Sub-Center functions for 24 hours Yes/No_____
6.To which Primary Health Center (PHC) is the Sub-Centre attached? _____
7. Distance (in KM) between Sub-Center/Sub-Center Clinic from the PHC _____
8. Distance between the Sub-Centre and the Rural Hospital (RH)_____
9. Is Sub-Centre connected by motorable road ? Yes/No/Some part
10. Sanctioned posts :
    a) No. of Permanent posts : _____
    b) No. of Contractual posts : _____
    c) No. of Vacant posts : _____
11. Number of employees :
    a) Number of female Health Worker-(ANM) : _____
    b) Number of male Health Worker- (MPW) : _____
    c) Number of contractual employees : _____
    d) Number of Attendant/Fourth Grade : _____
    e) Others : _____
12. Facilities available in the Sub-Centre :
    a) Is a designated Government building available for the Sub-Centre ? :
    Yes/No/Any Other (give your response) _____
    b) If No, has some arrangements been made in a Government building free of cost : Yes/No/ Any Other (give your response) _____
    c) Type of building ? : Pucca /Semi-Pucca/Kutchha/ Any Other(give your response)
    _____
    d) The building is on rental arrangement : Yes/No/ Any Other(give your response)
    _____
    e) Rent is provided by the Government : Yes/No/ Any Other (give your response)
    _____
    f) If no, does the community pay for the rent by way of contribution from each household or by some other process ?: Yes/No/ Any Other (give your response)
_____
    g) If yes, mention the process_____
13. Condition of the rooms and building of the Sub-Centre

a) The building /rooms are in good condition : Yes/No/ Any Other(give your response)
_____

b) The building /rooms are in a fairly good condition : Yes/No/ Any Other(give your response) _____

c) The building /rooms are in a bad condition : Yes/No/ Any Other(give your response)
_____

14. Electric supply facility in the Sub-Centre :
a) Is Regular Electricity Connection Available : Yes/No/ Any Other(give your response)
_____

b) A separate meter and facility for electricity supply is available : Yes/No /Any Other(give your response) _____

c) The electricity is available but is drawn from elsewhere : Yes/No/ Any Other(give your response):
_____

d) There is no electricity : Yes/No / Any Other(give your response) _____

15. Facility for water supply in Sub-Centre :
a) Is Water Connection available : Yes/No/ Any Other(give your response) :
_____

b) If yes,are Water Bills paid by the government ? : Yes/No/ Any Other (give your response) _____

c) If no, how does the Sub-Centre get water : _____
d) There is a separate water tank/through tanker/ well/ bore well pump : Yes/No / Any Other (give your response)_____

e) The water supply is irregular/water is short in summer/water has to be borrowed from neighbouring area : Yes/No/ Any Other (give your response)
_____
d) There is no facility for water supply at all in the : Yes/No/ Any Other (give your response) _____

16. Facility for Toilet in the Sub-Centre :
a) Are toilets available ? : Yes/No/Any Other(give your response) : _____

b)The toilet has running water : Yes/No/ Any Other(give your response) _____
c) The toilet has electric light : Yes/No/ Any Other(give your response) :
_____
d) The toilet is clean : Yes/No/ Any Other(give your response) : _____

17. Telephone Connectivity :
a) Is Telephone connection available ? : Yes/No/ Any Other(give your response) _____

b) If yes, are telephone bills paid by the Government ? : Yes/No/ Any Other(give your response) _____

18. Cleanliness in the Sub-Centre :Tick
a) The Sub Centre is very clean
b) The Sub Centre is clean in some places
c) There is no cleanliness anywhere in the Sub-Centre

19. Facility for battery running on solar power in the Sub-Centre :

a) There is arrangement for solar energy in the Sub-Centre : Yes/No/Any Other (give your response) _____

b) The solar battery is in working condition : Yes / No /Any Other (give your response) : _____

c) There is no arrangement for solar energy in the Sub-Centre at all : Yes / No / Any Other (give your response)_____

20. Facility for labour/delivery room :

a) Is there a separate room for delivery/labour ? : Yes/No/ Any Other (give your response)_____

b) There is a separate facility for delivery bed and equipments for delivery : Yes/No/Any Other (give yourresponse _____

c) There is no facility for delivery at all : Yes/No/ Any Other(give your response) : _____

21. In case there is facility for delivery at the Sub-Centre : Tick

a) The bed and floor in the delivery/labour room are clean and in proper condition

b) The bed and floor are in acceptably clean condition

c) The Bed and floor in the delivery/labour room- are unclean and not in a proper condition

22. Disposable kit for delivery*(The following minimum things are expected to be a part of the kit: Cotton, Hand gloves, Soap, New blade, Clean thread and cloth pads-sanitarynapkins)* : ***Tick***

a) All the above items are completely available in the disposable kit

b) Some of the items are missing

d) There is no disposable kit for delivery available at all

23. First aid kit for dressing of wound : *(The following minimum items are expected to be a part of the kit : cotton wool, bandage, betadine ointment,new blade, forceps, needle, thread and scissors, septicare*) Tick

a) All the above items are completely available in the disposable kit

b) Some of the items are missing

d) There is no first aid kit for dressing of wound available at all

24. Blood Pressure Apparatus :

a) The B.P apparatus is in good working condition : Yes/No/ Any Other(you're your response) : _____

b) There is no B.P apparatus : Yes/No/ Any Other(give your response) : _____ _____

25. Weighing machine :

a) The weighing machine is in good working condition : Yes/No/ Any Other(give your response) : _____

b) There is no Weighing Scale : Yes/No/ Any Other(give your response) : _____ _____

26. Is there Examination table in working condition in the Sub- centre? : Yes/No/ Any Other (give your response) : _____

27.Is there sterilizer instrument in working condition in the Sub-centre?

Yes/No/Instruments are sterilized by boiling / Any Other(give your response) :

_____

Services available in the Sub-Centre :

1. Are all pregnant women registered regularly ? : Yes/No/Sometimes/ Any Other(give your response) : _____

2. Is the weight of pregnant women checked in the sub-centre? : Yes/No/Sometimes/ Any Other(give your response): _____

3. Is the height of pregnant women being measured regularly in the sub-centre? : Yes/No/Sometimes/Any Other(give your response) : _____

4. Is the Blood Pressure of pregnant women being checked in the sub-centre ? : Yes/No/Sometimes /Any Other (give your response) : _____

5. Is abdominal examination done for pregnant women after the 5th month of their pregnancy in the sub-centre? : Yes/No/Sometimes/ Any Other(give your response) _____

6. Is the facility for referral of complicated cases of pregnancy / delivery available at Sub-Centre? : Yes/No/Sometimes/ Any Other(give your response) : _____

7. Are the immunization services as per government schedule provided by the Sub centre? :Yes/ No/Any Other(give your response): _____

8. Are Vitamin A supplements, IFA tablets/syrup, Albendazole tablets provided by the sub-center? : Yes/No/ Any Other(give your response) : _____

9. Is the treatment of diarrhea and dehydration available in the Sub centre?: Yes/No/Sometimes/ Any Other(give your response): _____

10. Is the facility for taking Peripheral blood smear in case of fever for detection available in the Sub centre? : Yes /No/Sometimes/ Any Other (give your response) : _____

11. Is the facility for urine test available in the Sub-Center ? : Yes/No/Sometimes/ Any Other(give your response) : _____

12. Are the contraceptive services like insertion of Copper –T, distributing Oral contraceptive pills or condoms provided by the Sub centre ? : Yes/No/Sometimes/ Any Other(give your response) : _____

13. Is treatment for day to day's simple illnesses *(cold-fever, cough, vomiting, stomach ache etc.)* available at the sub-centre ? : Yes/No/Sometimes/ Any Other(give your response) : _____

14.Is free treatment for Malaria available? Yes/No/Sometimes/ Any Other(give your response) :_____

15.Is free treatment for TB available? Yes/No/Sometimes/ Any Other(give your response) : _____

16.Is free treatment for Leprosy available? Yes/No/Sometimes/ Any Other (give your response) : _____

17. Is there facility for an injured patient to be given proper dressing? : Yes/No/Sometimes/Any Other(give your response) :
_____

18. Is proper dressing done for an injured person ?*(Tick anyone of the following 4 choices)* :
(proper dressing means the wound is cleaned properly medicine is applied and then bandaged)
a) Proper dressing is done for the patient
b) Proper dressing is done sometimes
c) Dressing is available sometimes but not done properly at all
d) Dressing for wounds not done at all

19. Do you have to wait long to get treatment ? :Tick
a) 0-10 minutes b)10-20 minutes c)20-30 minutes d) more than 30 minutes

20. Are there comfortable waiting areas with seating arrangements ? : Yes/No/ Any Other(give your response) :
_____

21. Did you have to pay any money to the doctor/nurse/healthworker ? : Yes/No/ Any Other(give your response) :
_____

22.Were you told your condition by the doctor/nurse/healthworker in a language you can understand ? : Yes/No/ Any Other(give your response) :
_____

23. How was the behavior of the doctor/nurse/healthworker towards you ? : Nice/Bad/Ok

24. Did you have to pay for the medicines you received in the center ? : Yes/No/ Any Other(give your response) :
_____

25. Depending on the nature of illness, have you ever been referred to another health care center? : Yes/No/Does not arise

26. If referred to another health care facility,specify where ? :
_____

27. Has the referral of seriously ill patient for further treatment been provided by the Sub-Centre ? : Yes/No/Sometimes/ Any Other(give your response)_____

28. Does the Sub-Centre make arrangement of vehicle for referring a seriously ill patient further, or is the expense incurred by the patient for vehicle to go to PHC been reimbursed? : Yes/No/Sometimes/Reimbursed/ Any Other(give your response) :
_____

29. Are there ASHA(Accredited Social Health Activist)in your locality ? : Yes/No/ Any Other(give your response) :
_____

30. If there are ASHAs,do these ASHAs accompany expectant mothers for delivery to hospitals? Yes/No/ Sometimes/ Any Other(give your response) :
_____

31. Are ASHAs given proper training ? : Yes/No/ Sometimes/ Any Other(give your response) :
_____

32. Does the PHC/Sub-Centre provide free medicines through ASHA? : Yes/No/ Sometimes/ Any Other(give your response) :
_____

33. Is there a **Citizens' Charter** in the local language in the Sub-Centre? : Yes/No/ Any Other(give your response) :
_____

34. In the last 3 months how many times did the doctor visit the sub-centre and provide treatment and medication ? :
a) 3 times b) 2 times c) only once d) In the last 3 months, doctors have not visited the Sub-Centre at all) Any Other (give your response):
_____

35. Does the Doctor ever visit the Sub-Centre at all ? : Yes/No/ Any Other (give your response) :
_____

36. If yes, how many the Doctor visits in a year ? :
_____

37. Are the residents of the village made aware of the timings of the doctor's visit ? : Yes/No/Any Other(give your response):
_____

38.Do other Specialist doctors visit the Sub-Centre ? : Yes/No/ Any Other (give your Response)
_____

39. **Covid-19 related Services :**

a) Are RAT test kits for Covid-19 available at the Sub-Centre? : Yes/No/Sometimes/ Any Other_____

b) Are RAT tests done for Covid-19 at the Sub-Centre or by the health workers? : Yes/No/Sometimes/ Any Other) _____

c) If RAT tests are done, are they done free of cost ? : Yes/No/ Any Other(give your response) :
_____

d) If not free, how much is charged ? : Rs. _____

e) Are Covid Vaccinations done at the Sub-Centre? : Yes/No/AnyOther
_____

f) Are Covid Vaccination done by the health workers of the Sub centres not in the sub-Centres but in other public places ? : Yes/No/ Any Other(give your response) : _____

g) If Vaccination done, are any fees taken ? : Yes/No/ Any Other(give your response) :
_____

h) If fees are taken, how much ? Rs. _____

i) Are treatment for mild and moderate cases of Covid provided at the Sub-Centre ? : Yes/No/ Any Other_____

j) Are medicines for mild cases of Covid provided free of cost at the Sub-Centre? : Yes/No Any Other_____

k) Are referall for patients with serious cases of Covid done by the Sub-Centre? : Yes/No/ Any Other:
_____

l) Does the Sub-Centre make arrangement of vehicle for referring a seriously ill Covid patient further, or is the expense incurred by the patient for vehicle to go to PHC been reimbursed ? Yes/No/Sometimes/reimbursed/ Any Other _____

40. Are you satisfied with the services received from the Sub-Center ? : Yes/No/ Any Other:_____

41. What are the noticeable differences in the working of the Sub Centre after it has been upgraded to a Health and Wellness Centre?
_____

42. Are NCD Services(BP,Diabetes and Cancer Screening) given by the Sub Centre? Yes/No

43.Who is responsible for giving out NCD Services ? Health Worker/Health and Wellness Officer/All Workers

44. Are NCD Services provided free of cost? Yes /No/Only in the first screening,patients have to pay for subsequent screenings due to lack of supply

45.Is Tele-Consultation practiced by the Sub Centre? Yes/No/Any Other(Pl give your response) :_
_____

46. How satisfied are you with the following(**Tick** the most appropriate) :

(i) Good Building

-Very Satisfied/Somewhat Satisfied/Acceptable Satisfaction/ Somewhat Satisfied/Very Dissatisfied

(ii)Cleanliness

- Very Satisfied/Somewhat Satisfied/ Acceptable Satisfaction / Somewhat Satisfied/Very Dissatisfied

(ii) Staff Attidude(Respect and good handling)

- Very Satisfied/Somewhat Satisfied/ Acceptable Satisfaction / Somewhat Satisfied/Very Dissatisfied

(iii) Technical competencies of staff

- Very Satisfied/Somewhat Satisfied/ Acceptable Satisfaction / Somewhat Satisfied/Very Dissatisfied

(iv) Availability and standard of Medicine

- Very Satisfied/Somewhat Satisfied/ Acceptable Satisfaction / Somewhat Satisfied/Very Dissatisfied

(v)Equipments

- Very Satisfied/Somewhat Satisfied/ Acceptable Satisfaction / Somewhat Satisfied/Very Dissatisfied

47. Patient's suggestions to improve PHC service : **Tick**

(i) Better Building
(ii) Provide more advanced equipments
(iii) Increase the number of staff
(iv) Supply of adequate medicines
(v) Provide dental care
(vi) Provide eye care
(vii) To make provision of **Jan Aushadhi Store** for selling Generic medicines at subsidized/minimal rates for medicines which are not provided in the Sub-Centre
(viii) More involvement of Sub Centre in Covid 19 Pandemic
(i)Others(Pl.Specify_____

Part II : Personal Data *(Personal Data is never to be shared nor revealed even in research writing)*

1.Name of the Respondent(Optional) : _____
2.Gender : Male/Female : _____
3. Age Group (Tick) :
(i) Below 25
(ii) 25-35
(iii) 36-50
(iv) Above-50
4. Educational Qualification :
(i) Graduate or more
(ii) HSSLC
(iii) HSC
(iv) Any other(Pl.Specify)_____
5.Main Source of Income :
(i) Agriculture
(ii) Service
(iii) Business
(iv)Any other(Pl.Specify)_____
6.Monthly Income in Rupees (Tick) :
(i) 5000-10,000
(ii) 10,000-30,000
(iii) Above-30,000
7. Position in the family : _____
8. Ration Card : APL/BPL/AAY

APPENDIX NO. III

Ref: **Beneficiaries/Patients**

Format-I

Department of Public Administration, Mizoram University

Questionnaire

He Questionaire hi Department of Public Administration, Mizoram University hnuaia Ph.D zirlai-research work atan chauha buatsaih a ni a. I chhanna hi thup tlat a ni ang. Khawngaih takin dik tak leh a kim thei ang bera min chhansak turin kan ngen a che.

Sd/- Marie Zodinpuii,

Part I :

District :_____ Taluka : _____

Date : _____

1. Veng hming : _____
2. Health and Wellness Centre/ Sub-Center hming :_____
3. Sub-Centre huam chhunga mihring cheng zat : _____
4. Sub-Centre huam chhunga Veng awm zat :_ _____
5. Sub-Center hi a mamawhtu tan darkar 24 chhungin a dawr theih em ? Aw/Aih/Sawi belh tur dang a awm chuan,sawi nise : _____
6. Eng Primary Health Center (PHC) hnuaiah nge sub-centre hi a awm : _____
7. PHC atanga Sub-Center/Sub-Center Clinic hlat zawng : KM_____
8. Rural Hospital (RH) atanga Sub-Center/Sub-Center Clinic hlat zawng : KM_____
9. Lirthei hmangin Sub-Centre kal pawh theih a ni em ? : Aw/Aih/A then/ Sawi belh tur dang a awm chuan,sawi nise :_____
10. Hnathawktu awm zat :
    a) Thawk nghet : _____
    b) Thawk nghet lo/Contract : _____
    c) Post ruak zat : _____
11. Thawktu hrang hrang din hmun:
    a) Female Health Worker(ANM) awm mek : _____
    b) Male Health Worker(MPW) awm mek : _____
    c) Thawk nghet lo/Contractual Employee awm mek : _____
    d) Attendant/Fourth Grade awm mek : _____
    e) Heng baka awm dangte : _____
12. Sub-Centre atana In leh Hmanrua awmte:

    a) Sub-Centre hi Sawrkar in Sub-Centre tura a sak a ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi lan nise : _____

    b) A nih loh chuan Sawrkar Building man chawi lova luah em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi lan nise :

_____

    c) Sub-Centre In chu engtia sak nge ? : Concrete In /A ban conrete/Thing In/ Sawi belh tur dang a awm chuan sawi lan nise :

_____

    d) Sub-Centre chu mimal IN man chawia luah hawh em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi lan nise :

_____

e) Man chawia IN luah a nih chuan Sawrkar in luah man a pe em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

f) Man chawia IN luah man hi chhungtin thawh khawma pek thin a ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise : _____

g) Thil dang atanga IN luah man pek a nih chuan sawi chian nise : _____

13. Sub-Centre atana hman Building din hmun chiang zawka zawh fiahna :

a) Building /Rooms-te chu tha tawk i ti em ? : Aw/Aih / Sawi belh tur dang a awm chuan sawi belh nise :

_____

b) Building /Rooms-te chu a hman theih ve tawk tawk em ni ? : Aw/Aih / Sawi belh tur dang a awm chuan sawi belh nise :

_____

c) Building /Rooms-te chu damlo enkawl nan a hman tlak tawh loh em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

14. Sub-Centre-a Electric-Eng Supply din hmun :

a) Electric Supply connection hran a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

b) Hmun dang atanga Electric power pek a ni em : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

c) Electric power pek a ni lo : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

15. Sub-Centre-a Tui Supply din hmun :

a) Tui Connection hranpa pek a ni em : : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

b) Tui Bill hi sawrkar-in a pe em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan,sawi nise :

_____

c)A nih loh chuan eng tin nge Sub-Centre in tui a neih ? : _____

d) Sub-Centre hian a hranin : *Tuizem/Tui phur/Tuichhunchhuah/Tui pump chhuah* a nei em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

e) Tui supply hi a *mumal lo/Thal laiin tui a tlem/Sun-Centre hnaiha mite ta tui lak thin* a ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

f) Sub-Centre ah hian tui supply a awm lo hrim hrim : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

16. Sub-Centre chhunga Ek/Zun/Inthiarna chungchang :

a) Ek/Zun In a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

b) Tui her haw tur a awm em : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

c) Electric eng a awm em : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

d) Inthiarna hmun chu a fai tha em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

17. Phone Connectivity :

a) Sub-Centre chuan Telephone/Mobile Connection a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

b) A awm chuan Sawrkar in Phone Bill a pe em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

_____

18. Faina chung chang :A dik ber thai rawh
    a) Sub-Centre chu a fai tha tawk
    b) Hmun then khat a faia, a then a fai tawk lo
    c) Sub-Centre chhung chu khaw lai mah fai a awm lo
19. Ni zung chakna Solar & Battery Electric Power chung chang :
    a) Solar Electric Power supply dah a ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi belh nise :

    _____

    b) A nih chuan Solar battery chu hman theihin a tha em ? : Aw/Aih / Sawi belh tur dang a awmchuan sawi nise :

    _____

    c) Solar Electric Power supply dah a ni lo hrim hrim em ni ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

    _____

20. Sub-Centre a Nau neihna Room chung chang :
a) Nau neihna Room hranpa a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

    b) Nau neihna Khum leh nau neihna hmanrua a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

    c) Nau neihna lam reng a tih theih loh : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

21. Nau neihna room a awm chuan :A dik ber thai rawh
    a) Nau neihna Khum leh hmunhma a fai tha tawk
    b) A fai angah a chhiar theih tawk mai e
    c) Khum leh chhuat a bal a, a nih tur angin a fai tawk lo
22. Nau neihna hmanrua-Disposable kit ah heng te hi a awm ngei tura ani :
    Cotton, Hand gloves, Soap, New blade, Clean Thread leh Cloth Pads(Sanitary Napkins) :
    A dik ber thai rawh
a) Heng hmanraw tarlante hi Disposable Kit ah hian a awm kim vek
    b) Hmanraw then khat te hi a awm kim lo
    c) Nau neihna hmanrua Disposable Kit a mite hi a awm miah lo
23. Hliam enkawlna tur First aid kit ah heng hmanruate hi awm ngei tura bei sei a ni*: cotton wool, bandage, betadine ointment,new blade, forceps, needle, thread and scissors, septicare*) A dik ber thai rawh
    a) Heng hmanraw tarlante hi First aid kit ah hian a awm kim vek
    b) Hmanraw then khat te hi a awm kim lo
    c) Hliam enkawlna tur First aid kit te hi a awm miah lo

24. Blood Pressure(B.P) endikna hmarua :
    a) Sub-Centre ah chuan B.P endikna hmanrua a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____
b) B.P endikna hmanrua chu a tha em ? : Aw/Aih / Sawi belh tur dang a awm chuan sawi nise :

_____

25. Rihlam Inbukna hmanrua :

a) Sub-Centre ah chuan Inbukna hmanrua a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

b) In bukna hmanrua chu a tha em?: Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

26. Sub-Centre ah chuan dam lo enna turin Dawhkan tha a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

27. Sub-Centre hmanrua te tih thianghlimna hmanrua a awm em ? : Aw/Aih/Chhum thianghlim thin an ni/ Sawi belh tur dang a awm chuan sawi nise :

_____

Sub-Centre atanga enkawlna pek chung chang :

1. Raipuarte hi uluk taka chhinchhiah kim vek an ni em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

2. Sub-Centre ah hian Naupai rihna buk thin a ni em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

3. Nu naupaite san zawng a hun takah the sak thin a ni em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

4. Raipuarte Blood Pressure en/check sak thin an ni em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

5. Thla nga rai hnuah raipuarte dul exam sak thin a ni em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

6. Raipuar zingah harsatna khirh khan bik neite tan Sub-Centre atanga hmundang changtlung zawk kawh hmuhna tha a awm thei em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

7. Sawrkar in Natna laka Invenna/Immunization a ruahmante hi Sub-Centre hian a pe chhuak thin em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

8. Heng ***Vitamin-A ,Calcium,TT injection, IFA tablets/syrup, Albendazole tablets*** te hi Sub-Centre hian a pe chhuak thin em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

____

9. Tuihri, kawthalo leh a kaihnawih enkawlna damdawite hi a awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

10. Khawsik avanga Thisen endikna/lakna hmanrua te hi a awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise : -

_____

11. Zun Exam-na hmarua Sub-Centre ah a awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :_____

12. Chhangkhatna hmanrua heng : Copper-T dahte, A mum ei chite or Condom-te hi a pe chhuak thin em? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

____

13. Natna tlanglawn heng : Khuh, Khawsik, Luak, Pumna damdawite hi Sub-Centre ah chuan a mamawhtu te tan a awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

14. Malaria enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

15. T.B enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changin/Sawi belh tur dang a awm chuan sawi nise :

_____

16.Phar natna enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changin/Sawi belh tur dang a awm chuan sawi nise :

_____

17. Hliam tuamna hmanrua leh damdawite a awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

18. **Hliam enkawlna** *(a pem lai tihfai, pemthar dawmdawi hnawih a, tuam sak)* : ***A dik ber thai rawh***

a) Hliam enkawlna hi Sub-Centre ah tha taka tih sak ziah thin a ni.
b) A changing Hliam enkawlna hi Sub-Centre ah tha taka tih sak a ni.
c) Hliam enkawlna hmarua chu a awm, mahse tha zik tluaka tih sak a ni ngai lo.
d) Hliam tuam hnathawh a awm ngai lo.

19. Damdawi a in enkawl turin engtia rei nge an ngah thin ? : A dik ber thai rawh

a) 0-10 minutes b)10-20 minutes c)20-30 minutes d)minit 30 ai a rei

20. Sub-Centre ah In entir tura lo nghahna tur thutna a awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

21. I in entir dawnin Sub-Centre ah Doctor/Nurse/Health worker-te hnenah pawisa pek a ngai thin em ? : Aw/Aih / Sawi belh tur dang a awm chuan sawi nise :

_____

22. Doctor/Nurse/Health worker ten I nat dan I hriat thiam theih turin I tawng hmanin an hrilhfiah thin che em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

23. Doctor/Nurse/Health worker te I lakah an tha em ? : Tha/Tha lo/Tha ve khat e/Sawi belh tur dang a awm chuan sawi nise :

_____

24. Sub-Centre atanga damdawi I lakin pawisa pek a ngai em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

25. I nat dan azirin hmun dang changtlung zawk Sub-Centre atangin an kawh hmuh thin che em? : Aw/Aih/ Kawhhmuh ngailo/ Sawi belh tur dang a awm chuan sawi nise :

_____

26. Sub-Centre in hmun dang tha zawk kal tura an tih che chuan, khawi hmun nge ? :

_____

27. Natna khirhkhan bik thilah Sub-Centre atang hian hmun dang changtlung zawk kawh hmuhna an nei ngai em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

28. Sub-Centre in a rulh let turin natna khirh leh tul bil takah PHC pan turin lirthei an ruahman sak tawh ngai em ? : Aw/Aih/A changin/Rul let tawh ngai e/ Sawi belh tur dang a awm chuan sawi nise :

_____

29. ASHA(Acredited Social Health Activist) hi in vengah an awm em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

30. ASHA te hi in vengah an awm chuan Nu nau hring tur damdawiin ah an hruai ngai em ? : Aw/Aih/A changing /Sawi belh tur dang a awm chuan sawi nise :

_____

31. ASHA te hi Zirtirna/Training pek an ni em ? Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

32. PHC/Sub-Centre te hian ASHA kal tlangin damdawi an pe chhuak thin em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise :

_____

33. In Sub-Centre ah an hnathawh thinte ziah chhuahna Citizens' Charter Mizo tawnga ziak an tar em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise_:

_____

34. Thla thum kal ta chhung khan Doctor in Sub-Cerntre hi vawi eng zat nge damlo en turin a tlawh ? :
a) Vawi-3 b) Vawi-2 c) Vawi-1 d) Hemi hun chhung hian a tlawh lo e) Sawi belh tur dang a awm chuan sawi nise :

_____

35. Doctor in Sub-Centre hi a tlawh tawh ngai em? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise
:_____

36. Doctor in Sub-Centre a tlawh thin chuan kum khatah vawi eng zat nge a tlawh ? :

_____

37. Khawtual mite hi Doctor in Sub-Centre a tlawh hun tur Ni hriattir lawk an ni thin em ? : Aw/Aih/Sawi belh tur dang a awm chuan sawi nise :

_____

38. Thiamna bik nei-Specialist Doctor ten Sub-Centre hi an tlawh ngai em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise_:

_____

39. **Covid-19 enkawlna lam :**

a) Covid-19 dap chhuahna RAT test kits hi Sub-Centre ah awm em ? : Aw/Aih/A changin/ Sawi belh tur dang a awm chuan sawi nise : _____

b) RAT test hmangin Sub-Centre ah Covid-19 dap chhuahna a ni em ? : Aw/Aih/A changin/Sawi belh tur dang a awm chuan sawi nise : _____

c) Man chawi lovin em ni RAT tests chu an kalpui ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

d) Man chawi ni se, eng zat nge chawi angaih ? Rs._____

e) Covid Vaccine hi Sub-Centre ah pek a ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

_

f) Covid Vaccine hi Sub-Centre a health workers ten Sub Centre ni kherlo , public place hranah an pe chhuak em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

g) Man chawi lovin em ni Vaccine chu pek a nih ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

h) Pawisa chawia Vaccine pek a nih chuan eng zat man nge ? Rs. _____

i) Sub-Centre ah hian Covid kai damlo zia awm deuhte enkawlna pek an ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise :

_____

j) Covid kai damlo ziaawm deuhte damdawia enkawlna man chawi lovin sub-centre ah

pek an ni em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____
_____
_

k) Sub-Centre in Covid kai damlo nazual deuhte hmun chang tlung zawkah kal turin a kawh hmuh/ refer ngai em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____
_____
_

l) Sub-Centre in a rulh let turin Covid damlo na zual khirh leh tul bil takah PHC pan turin lirthei an ruahman sak tawh ngai em ? : Aw/Aih/ Sawi belh tur dang a awm chuan sawi nise : _____

_____

40. Sub-Centre hnathawh dan hi tha tawk i ti em ? : Aw/Aih/ Ka sawi thei lo/Sawi belh tur dang a awm chuan sawi nise :

_____

41. Sub-Centre hi Health and Wellness Centre a hlankai anih tak hnu a, a danglamna sawilan ni se :

_____

42. Sub-Centre ah hian NCD Services(BP Sang, Zunthlum leh Cancer Screening) hi pekchhuah ani em?

_____

43.NCD Services te hi tu in nge kalpui thin ? Health Worker/Health and Wellness Officer/Thawktu zawng zawng ten/Sawi belh tur a awm chuan sawi nise :

_____

44.NCD Services(BP Sang, Zunthlum leh Cancer Screening) hi a thlawn vek a pek chhuah ani em? Aw/Aih/First Screening ah a thlawn a pek chhuah ania,a hnulam chu hmanraw indaih loh avangin a man lak ani thin. ***Hemi chungchangah hian sawibelh tur a awm chuan sawi belh nise*** :

_____
_____

45.Damlo enkawl nan Tele-Consultation hi tih thin ani em? Aw/Aih/Sawi belh tur a awm chuan sawi ni se :

_____
_____

46.Sub-Centre chungchang I lungawi leh lungawiloh na heng ahnuaia tarlan ah te hian a awm ber **Thai** hlawm rawh :

(i)Building chungchangah
Lungawi hle/Lungawi e/Lungawi khat/lungawi vaklo/lungawi lo hle
(ii) Faina chungchangah-
Lungawi hle/Lungawi e/ Lungawi khat /lungawi vaklo/lungawi lo hle
(iii) Thawktu te damlo dawnsawn danah
Lungawi hle/Lungawi e/ Lungawi khat /lungawi vaklo/lungawi lo hle
(iv) Thawktute thiamna ah
Lungawi hle/Lungawi e/ Lungawi khat /lungawi vaklo/lungawi lo hle
(v) Damdawi sem chhuah chungchangah
Lungawi hle/Lungawi e/ Lungawi khat /lungawi vaklo/lungawi lo hle
(vi) Hman raw neih that chung changah
Lungawi hle/Lungawi e/ Lungawi khat /lungawi vaklo/lungawi lo hle

42. Primary Health Care Service-Sub Centre chang tlung zawk nana thurawn i duhte **Thai** rawh :

(i) Building tha zawk
(ii) Hmanraw tha zawk a thuam
(iii) Thawktu dah belh
(iv) Damdawi tam zawk pek belh

(v) Ha enkawlna pe thei tura thuam
(vi) Mit enkawlna pe thei tura thuam belh
(vii) Damdawi man tlawm zawka zawrhna-**Jan Aushadhi Store** awm ve se
(viii) Covid-19 enkawlna lama thuam chak
(ix) Hmasawnna atan ngaihpawimawh I neih dangte sawi belh nise : _____

Part II : Mimal chungchang tarlanna *(hi thup tlat a ni,Research ah pawh hian ziah lan ani lo vang)* :

1. Chhangtu Hming : _____
2. Gender : Mipa/Hmeichhia/Adangte : _____

3. Age Group (Tick) :
   (i) Kum 25 hnuai lam
   (ii) Kum 25-35 Inkar
   (iii) Kum 36-50 Inkar
   (iv) Kum 50 chung lam

4.Educational Qualification :
   (i) Graduate or a chung lam
   (ii) HSSLC
   (iii) HSLC
   (iv) Thiamna bik chu ziah chian nise: _____

5. Sum lakna hnar :
   (i) Lo/Huan neih
   (ii) Sawrkar hnathawh
   (iii) Sumdawnna
   (iv) A dang a nih chuan ziah lan mai nise : _____

6. Thla tina sum lak luh zat :
   (i)Cheng 5,000-10,000 Inkar
   (ii) Cheng 10,000-30,000 Inkar
   (iii)Cheng 30,000 chung lam

7. Chhungkuaa nihna (Pi/Pu/Nu/Pa/Fanu/Fapa): _____

8. Ration Card : i) APL
   ii) BPL
   iii) AAY

APPENDIX NO. IV

Ref: Officials/Health Workers, etc.

Format-2
Department of Public Administration, Mizoram University
Questionnaire

This Questionnaire has been prepared in connection with data collection for completing Ph.D research Work in the Department of Public Administration, Mizoram University. The data and information collected will be used only for academic purposes and will not be used in any manner by which privacy of the respondents will be revealed.

Sd/-Marie Zodinpuii,

Part I :

District : Taluka :

Date : _____

1. Name of the locality : _____
2. Name of Health Sub-center/Health and Wellness Centre : _____
3. Total population covered by the Sub-centre :_____
4. No. of villages which come under the sub-centre : _____
5. Whether the Sub-center functions for 24 hours Yes/No : _____
6. To which Primary Health Center (PHC) is the sub-centre attached ? : _____
7. Distance (in KM) between Sub center/Sub Center Clinic from the PHC : _____
8. Distance between the sub-centre and the District Hospital: _____
9. Is Sub-Centre connected by motorable road ? : Yes/No/Some part
10. Sanctioned posts :
    a) No. of Permanent posts : _____
    b) No. of contractual posts : _____
    c) No. of vacant posts : _____
11. Number of employees :
    a) Number of female Health Worker-(ANM) : _____
    b) Number of male Health Worker- (MPW) : _____
    c) Number of contractual employees : _____
    d) Number of Attendant/Fourth Grade : _____
    e) Others : _____
    f) Any matter regarding govt employees you would like to share : _____

_____

12. Facilities available in the Sub-Centre :
    a) Is a designated Government building available for the Sub-Centre ? : Yes/No
    b) If No, has some arrangements been made in a Government building in the village free of cost : Yes/No
    c) Type of building ? : Pucca /Semi-Pucca/Kutchha
    d) The building is on rental arrangement : Yes/No
    e) Rent is provided by the Government : Yes/No
    f) If no, does the community pay for the rent by way of contribution from each household or by some other process ? : Yes/No

g) If yes, mention the process_____

h) Any suggestions /comments regarding Sub Centre Building and related matters? _____

_____

13. Condition of the rooms and building of the Sub-Centre :

a) The building /rooms are in good condition

b) The building /rooms are in a fairly good condition

c) The building /rooms are in a bad condition

14. Electric supply facility in the Sub-Centre :

a) Regular Electricity Connection is Available

b) A separate meter and facility for electricity supply is available

c) The electricity is available but is drawn from elsewhere

d) There is no electricity

15. Facility for water supply in Sub-Centre :

a) Water Connection is available : Yes/No

b) If yes,are Water Bills paid by the government ? : Yes/No

c) If no, how does the Sub-Centre get water : _____

d) There is a separate water tank/through tanker/ well/ bore well pump : Yes/No

e) The water supply is irregular/water is short in summer/water has to be borrowed from neighbouring area : Yes/No

f) There is no facility for water supply at all: Yes/No

16. in the Sub-Centre :

a) Are toilets available ? : Yes/No

b)The toilet has running water : Yes/No

c) The toilet has electric light : Yes/No

d)The toilet is clean : Yes/No

17. Telephone Connectivity :

a) Is Telephone connection available ? : Yes/No

b) If yes, are telephone bills paid by the Government ? : Yes/No

18. Cleanliness in the Sub-Centre :

a) The Sub Centre is very clean

b) The Sub Centre is clean in some places

c) There is no cleanliness anywhere in the Sub-Centre

19. Facility for battery running on solar power in the Sub-Centre :

a) There is arrangement for solar energy in the Sub-Centre : Yes/No

b) The solar battery is in working condition : Yes/No

c) There is no arrangement for solar energy in the Sub-Centre at all : Yes/No

20. Facility for labour/delivery room :

a) Is there a separate room for delivery/labour ? : Yes/No

b) There is a separate facility for delivery bed and equipments for delivery : Yes/No

c) There is no facility for delivery at all : Yes/No/don't know

21. In case there is facility for delivery at the Sub Centre :

a) The bed and floor in the delivery/labour room are clean and in proper condition : Yes/No

b) The bed and floor are in acceptably clean condition : Yes/No/don't know

c) The Bed and floor in the delivery/labour room- are unclean and not in a proper condition : Yes/No

22. Disposable kit for delivery*(The following minimum things are expected to be a part of the kit: Cotton, Hand gloves, Soap, New blade, Clean thread and cloth pads-sanitarynapkins)*

a) All the above items are completely available in the disposable kit :Yes/No

b) Some of the items are missing : Yes/No/don't know

d) There is no disposable kit for delivery available at all : Yes/No

23. First aid kit for dressing of wound : *(The following items are expected to be a part of the kit : cotton wool, bandage, betadine ointment,new blade, forceps, needle, thread and scissors, septicare*)

a) All the above items are completely available in the disposable kit :Yes/No

b) Some of the items are missing : Yes/No
d) There is no first aid kit for dressing of wound available at all : Yes/No

24. Blood Pressure Apparatus :
a) The B.P apparatus is in good working condition : Yes/No
b) There is no B.P apparatus : Yes/No

25. Weighing machine :
a) The weighing machine is in good working condition : Yes/No
c) There is no Weighing Scale : Yes/No

26. Is there Examination table in working condition in the Sub centre? : Yes/No

27. Is there sterilizer instrument in working condition in the Sub centre? : Yes/No/Instruments are sterilized by boiling

28. Availability of medicine stock in Sub-Centre : *Activity- By observation, every Sub-Centre is given a medicine kit. When the medicines in the kit are over, the ANM is responsible to make demand for the medicines. With the information given as per the register book duly maintained by the ANM, kindly fill the above empty columns* on the date of which the last medicine kit was received : dt. _____

1. Quantity of medicines in the last kit as noted in the register : _____
2. Quantity demanded apart from that received in the last kit : _____
3. Actual stock as seen while collecting information : _____
4. Expiry Date of the Medicine : _____

Details of the Medicines list :

i) Paracetamol Syrup: Yes/No
(Liquid medicine given to children in case of fever & bodyache)
ii) Paracetamol Tab : Yes/No
(Medicine given in case of fever & bodyache)
iii) Ferrous Sulphate Tab : Yes/No
(Iron tablets given to pregnant women,women and children who have anemia)
iv) Fura Tab : Yes/No
(Tablets to be given in case of diarrhea)
v) ORS packet : Yes/No
(Administered when water and salts in the body are depleted during diarrhea)
vi) Cotrimexazol Tab : Yes/No
(In case of germ infection)
vii) Metronidazole Tab : Yes/No
(For amoeba & other germ infections)
viii) Albendazole Tab : Yes/No
(This medicine is given in the amebiasis & other germ infections)
ix) Albendazole Syrup : Yes/No
(Liquid medicine given for worms in stomach)
x) Gamma Benzene Hexachloride lotion : Yes/No
(Lotion given for application in case of scabies)
xi)Medicines for treating Malaria:Yes/No
xii) Medicines for treating TB:Yes/No
xiii) Medicines for treatingLeprosy:Yes/No
xiv)Any other medicines supplied to the Sub Centre

_____

29. Are the medicines required for treating patients available in sufficient quantity as per the requirement /demand : **Tick**
a) All the medicines are provided as per the demand (100%)
b) Only half of the medicines are provided(50%)
c) Less than half of the medicines demanded are provided

30. Any suggestions regarding facilities available in the Sub Centre :

_____

Services available in the Sub-Centre :

1. Are all expectant mothers registered regularly ? : Yes/No/Sometimes
2. Is the weight of all expectant mothers checked in the sub-centre? : Yes/No/Sometimes
3. Is the height of all expectant mothers being measured regularly in the sub-centre? : Yes/No/Sometimes
4. Is the Blood Pressure of expectant mothers being checked in the sub-centre ? : Yes/No/Sometimes
5. Is abdominal examination done for expectant mothers after the 5th month of their pregnancy in the sub-centre ? : Yes/No/Sometimes
6. Is the facility for referral of complicated cases of pregnancy / delivery available at Sub-Centre ? : Yes/No/Sometimes
7. Are routine immunization services as per government schedule provided by the Sub-Centre? :Yes No
8. Are Vitamin A ,Calcium,TT Injections, IFA tablets/syrup, Albendazole tablets provided by the sub center ? : Yes/No
9. Is the treatment of diarrhea and dehydration available in the Sub-Centre?: Yes/ No/Sometimes
10. Is the facility for taking Peripheral blood smear in case of fever for detection available in the Sub centre? : Yes /No/Sometimes
11.. Is the facility for urine test available in the Sub-Center ? : Yes/No/Sometimes
12. Are the contraceptive like Copper –T, Oral contraceptive pills or condoms provided by the Sub centre ? : Yes/No/Sometimes
13. Is treatment for day to day's simple illnesses*(cold-fever, cough, vomiting, stomach ache etc.)* available at the sub-centre ? : Yes/No/Sometimes
14. Is there facility for an injured patient to be given proper dressing? : Yes/No/Sometimes
15.Is free treatment for Malaria available? Yes/No/Sometimes
16.Is free treatment for TB available? Yes/No/Sometimes
17.Is free treatment for Leprosy available? Yes/No/Sometimes
18. Is proper dressing done for an injured person ?*(Tick anyone of the following 4 choices)* : *(proper dressing means the wound is cleaned properly medicine is applied and then bandaged)*
    a) Proper dressing is done for the patient
    b) Proper dressing is done sometimes
    c) Dressing is available sometimes but not done properly at all
    d) Dressing for wounds not done at all
19. Do patients have to wait long to get treatment ? : Yes/No
20. Are there comfortable waiting areas with seating arrangements ? : Yes/No
21. Do patients have to pay for medicines available in the Sub-Centre? : Yes/No
22. Do you sufficiently explain and communicate the health condition of the patient,with patience and empathy in a language he/she can understand ? : Yes/No
23. Do you think it is important to be kind, courteous, attentive and supportive to the patients as far as possible ? : Yes/No
24. Depending on the nature of illness, have patients been referred to another health care center ? : Yes/No/Does not arise
25. If referred to another health care facility,specify where ? : _____
26. Does the Sub centre make arrangement of vehicle for referring a seriously ill patient further or is the expense incurred by the patient for vehicle to go to PHC been reimbursed? : Yes/No/Sometimes/reimbursed
27. In the last 3 months how many times did the doctor visit the sub-centre and provide treatment and medication ? : **Tick**
    a) 3 times b) 2 times c) only once d) In the last 3 months,doctors have not visited the Sub-Centre at all
28. Does the Doctor ever visit the Sub-Centre at all ? : Yes/No
29. If yes, how many Doctor visits in a year ? : _____
30. Are the residents of the village made aware of the timings of the doctor's visit ? : Yes /No
31. Do other Specialist Doctors visit the Sub-Centre ? : Yes/No

32. Are there **ASHA**(Acredited Social Health Activist) in the locality to help you perform your duties? : Yes/No

33. If there are ASHAs, do these ASHAs accompany expectant mothers for delivery to hospitals ? : Yes/No/ Sometimes

34. Are ASHAs given proper training? : Yes/No/Sometimes

35. Does the PHC/Sub-Centre provide free medicines through ASHA? : Yes/No/Sometimes

36.Is there anything you would like to say regarding the working conditions and role of ASHAs :

_____

37. Is there a **Citizens' Charter** in the local language in the Sub-Centre ? : Yes/No

38. **Covid-19 related Services :**

a) Are RAT test kits for Covid-19 available at the Sub Centre ? : Yes/No/Sometimes

b) Are RAT tests done for Covid-19 at the Sub Centre ? : Yes/No/Sometimes

c) If RAT tests are done,are they done free of cost ? : Yes/No

d) If not free, how much is charged ? : Rs. _____

e) Are Covid Vaccination done at the Sub-Centre ? : Yes/No

f) Are Covid Vaccination done by the health workers of the Sub centres not in the sub Centres but in other public places ? : Yes/No

g) If Vaccination done, are any fees taken ? : Yes/No

h) If fees are taken, how much ? : Rs. _____

i) Are treatment for mild and moderate cases of Covid provided at the Sub-Centre ? : Yes/No

j) Are medicines for mild cases of Covid provided free of cost at the Sub-Centre ? : Yes/No

k) Are referal for patients with serious cases of Covid done by the Sub-Centre ? : Yes/No

l) Does the Sub-Centre make arrangement of vehicle for referring a seriously ill Covid patient further treatment, or is the expense incurred by the patient for vehicle to go to PHC been reimbursed ? : Yes/No/Sometimes/reimbursed

39. Do you think patients are satisfied with the services received from the Sub-Center ? : Yes/No/Cannot Say

40.Does the PHC check the Health Record of the Sub Centre on a weekly basis? Yes/No /Sometimes

41. Does a Medical Officer/Doctor check the Health Record of the Sub Centre on a monthly basis? Yes/No /Sometimes

43.Does the Local/Village Health Sanitation and Nutrition Committee supervise the working of the Sub Centres? Yes/No /Sometimes

44. Any suggestions regarding services available in the Sub Centre(including NCD Services)

_____

_____

45. What are the noticeable differences in the working of the Sub Centre after it has been upgraded to a Health and Wellness Centre?

_____

_____

46. Are NCD Services(BP,Diabetes and Cancer Screening) given by the Sub Centre? Yes/No

47.Who is responsible for giving out NCD Services ? Health Worker/Health and Wellness Officer/Thawktu zawng zawng ten

48. Are NCD Services provided free of cost? Yes /No/Only in the first screening,patients have to pay for subsequent screenings due to lack of supply

49.Is Tele-Consultation practiced by the Sub Centre? Yes/No/Any Other(Pl give your response)

_____

_____

50. Tick for your suggestions to improve PHC Service :

(i) Better Building
(ii) Provide more advanced equipments
(iii) Increase the number of staff
(iv) Supply of adequate medicines
(v) Provide Dental care
(vi) Provide eye care
(vii) To make provision of **Jan Aushadhi Store** for selling Generic medicines at subsidized/minimal rates for medicines which are not provided in the Sub-Centre
(vii) More involvement of Sub-Centre in Covid-19 Pandemic
(v) Others Pl.Specify :_____

51. Has services ever been denied to any patient ? : Yes/No

52. If so,state reason:

Residential Quarters arrangements for health workers and its availability :

1. Is there any residential quarters arrangement for the ANM/MPW in the Sub-Centre ? : Yes/No
2. Does the ANM/MPW stay in the Sub-Centre regularly ? : Yes/No

Facilities in the residential quarters and the condition of the same :

(If the Sub-Centre does not have any residential arrangement for the ANM, the following questions does not arise)

1. Is there a separate individual room for ANM/MPW in the Sub-Centre ? : Yes/No
2. Is the condition of the room and the walls, paint, doors and windows, good ? : Yes/No/Ok
3. Is there separate electricity connection provided for the Quarters ? : Yes/No
4. Are there any independent tank facility for storage of water from Tanker, well, hand pump? : Yes/No
5. Are there any regular Electricity and Water supply ? : Yes/No
6. Is there any separate Toilet/ bathroom facility for the Quarters ? : Yes/No

Part-II : Personal Data *(Personal Data is never to be shared nor revealed even in research writing)* :

1.Name of the Respondent*(Optional)* : _____

2. Designation of the Respondent : Tick
   (i) ANM
   (ii) Health Worker(Male)
   (iii) Other_____

3.Gender : Male/Female_____

4. Age Group : Tick
   (i) Below-25
   (ii) 25-35
   (iii) 36-50
   (iv) Above-50

5. Educational Qualification_____

6. Years of Service : Tick
   (i) 0-1
   (ii) 2-5
   (iii) More than 5 years

7.Year of joining in the present Sub-Center : _____

8. Position in the family : _____

APPENDIX NO. V

Ref:Officials/HealthWorkers,etc

Format-2
Department of Public Administration, Mizoram University
Questionnaire

He Questionnaire hi Department of Public Administration, Mizoram University hnuaia Ph.D zir lai-research work atan chauha buatsaih a ni a. I chhanna hi thup tlat a ni ang. Khawngaih takin dik tak leh a kim thei ang bera min chhansak turin ka ngen a che.

Sd/- Marie Zodinpuii,

Part I :

District : Taluka :

Date : _____

1. Veng hming : _____
2. Health and Wellness Centre/ Sub-Center hming : _____
3. Sub-Centre huam chhunga mihring cheng zat :_____
4. Sub-Centre huamchhunga Veng awm zat :_____
5. Sub-Center hi a mamawhtu tan darkar 24 chhungin a dawr theih em ? Aw/Aih
6. Eng Primary Health Center (PHC) hnuaiah nge sub-centre hi a awm? : _____
7. PHC atanga Sub-Center/Sub-Center Clinic hlat zawng : KM_____
8. District/Rural Hospital atanga Sub-Center/Sub-Center Clinic hlat zawng : KM_____
9. Lirthei hmangin Sub-Centre kalpawh theih a ni em ? : Aw/Aih/A then
10. Hnathawktu awm zat :
    a) Thawk nghet : _____
    b) Thawk nghet lo/Contract : _____
    c) Post ruak zat : _____
11. Thawktu hrang hrang dinhmun:
    a) Health and Wellness Officer awm mek :_____
    b) Female Health Worker awm mek : _____
    c) Male Health Worker awm mek : _____
    d) Thawk nghet lo/Contractual Employee awm mek : _____
    e) Attendant/Fourth Grade awm mek : _____
    f) Heng baka thawktu awm dangte : _____
    g)Thawktute chungchangah sawi belh tur/thurawn a awm chuan sawi ni se : _____

_____

12. Sub-Centre atana In leh Hmanrua awmte:
    a) Sub-Centre hi Sawrkar in Sub-Centre tura a sak a ni em ? : Aw/Aih
    b) A nih loh chuan Sawrkar Building man chawi lova luah em ni ? : Aw/Aih
    c) Sub-Centre In chu engtia sak nge ? : Concrete In /A ban conrete/Thing In
    d) Sub-Centre chu mimal IN man chawia luah hawh a ni em? : Aw/Aih
    e) Man chawia IN luah a nih chuan Sawrkar in luah man a pe em ni? : Aw/Aih

f) Man chawia IN luah man hi chhungtin thawh khawma pek thin a ni em? : Aw/Aih

g) Thil dang atanga IN luah man pek a nih chuan sawi chian ni se : _____

h) Sub Centre Building leh a kaihhnawih chungchangah sawi belh duh/thurawn a awm em? : _____

_____

13. Sub-Centre atana hman Building dinhmun chiang zawka zawhfiahna :

a) Building /Rooms-te chu tha tawk i ti em ? : Aw/Aih

b) Building /Rooms-te chu a hman theih ve tawk tawk em ni ? : Aw/Aih

c) Building /Rooms-te chu damlo enkawl nana hman tlak tawh loh em ni ? : Aw/Aih

14. Sub-Centre-a Electric-Eng Supply din hmun :A dik ber thai rawh

a) Electric Supply connection hran a awm

b) Hmun dang atanga Electric power pek/pawh a ni

c) Electric power pek a ni lo

15. Sub-Centre-a Tui Supply dinhmun :

a) Tui Connection hranpa pek a ni em? : Aw/Aih

b) Tui Bill hi sawrkar-in a pe em ni ? : Aw/Aih

c) A nih loh chuan eng tin nge Sub-Centre in tui a neih ? : _____

d) Sub-Centre hian a hranin : *Tuizem/Tui phur motor/Tuichhunchhuah/Tui pump chhuah* a nei em ? : Aw/Aih

e) Tui supply hi a *mumal lo/Thal laiin tui a tlem/Sun-Centre hnaiha mite ta tui lak thin* a ni em ? : Aw/Aih

f) Sub-Centre ah hian tui supply a awm lo hrim hrim : Aw/Aih

16. Sub-Centre chhunga Ek/Zun/Inthiarna chungchang :

a) Ek/Zun In a awm em ? : Aw/Aih

b) Tui her haw tur a awm em : Aw/Aih

c) Electric eng a awm em : Aw/Aih

d) Inthiarna hmun chu a fai tha em ? : Aw/Aih

17. Telephone Connectivity :

a) Sub-Centre chuan Telephone/Mobile Connection a awm em ? : Aw/Aih

b) A awm chuan Sawrkar-in Phone Bill a pe em ni ? : Aw/Aih

18. Faina chungchang :A dik ber thai rawh

a) Sub-Centre chu a fai tha tawk

b) Hmun thenkhat a fai a, a then a fai tawk lo

c) Sub-Centre chhung chu khawi lai mah fai a awm lo

19. Ni zung chakna Solar & Battery Electric Power chungchang :

a) Solar Electric Power supply dah a ni em ? : Aw/Aih

b) A nih chuan Solar battery chu hman theihin a tha em ? : Aw/Aih

c) Solar Electric Power supply dah a ni lo hrim hrim em ni ? : Aw/Aih

20. Sub-Centre-a Nau neihna Room chungchang :

a) Nau neihna Room hranpa a awm em ? : Aw/Aih

b) Nau neihna Khum leh nau neihna hmanrua a awm em ? : Aw/Aih

c) Nau neihna lam reng reng a tih theih loh : Aw/Aih

21. Sub-Centre-a Nau neihna hmunhma chungchang : A dik ber thai rawh

a) Nau neihna Khum leh hmunhma a fai tha tawk

b) A fai angah a chhiar theih a ni

c) Khum leh chhuat a bal a, a nih tur angin a fai tawk lo

22. Nau neihna hmanrua-Disposable kit-ah hengte hi a awm ngei tura ngaih/beisei a ni : *Cotton, Hand gloves, Soap, New blade, Clean Thread leh Cloth Pads (Sanitary Napkins)* :

A dik ber thai rawh :

a) Heng hmanraw tarlante hi Disposable Kit-ah hian a awm kim vek

b) Hmanraw thenkhatte hi a awm kim lo

c) Nau neihna hmanrua Disposable Kit-a mite hi a awm miah lo

23. Hliam enkawlna tur First aid kit-ah heng hmanruate hi awm ngei tura beisei a ni*:cotton wool, bandage, betadine ointment, new blade, forceps, needle, thread and scissors, septicare*) : A dik ber thai rawh

a) Heng hmanraw tarlante hi First aid kit-ah hian a awm kim vek
b) Hmanraw thenkhatte hi a awm kim lo
c) Hliam enkawlna tur First aid kit-te hi a awm miah lo

24. Blood Pressure (B.P) endikna hmanrua :
a) Sub-Centre ah chuan B.P endikna hmanrua a awm em ? : Aw/Aih
b) B.P endikna hmanrua chu a tha em ? : Aw/Aih

25. Rih lam Inbukna hmanrua :
a) Sub-Centre ah chuan Inbukna hmanrua a awm em ? : Aw/Aih
b) In bukna hmanrua chu a tha em ? : Aw/Aih

26. Sub-Centre ah chuan damlo enna turin Dawhkan tha a awm em ? : Aw/Aih

27. Sub-Centre hmanruate tihthianghlimna hmanrua a awm em ? : Aw/Aih/Chhum thianghlim thin an ni

28. Sub-Centre a Damdawi dah that dinhmun :
i) Chhinchhiah hnuhnung bera Damdawi-medicine kit dawn zat: _____
ii) Damdawi mamawh dil zat atanga dawn zat : _____
iii) Tun dinhmuna damdawi kawl zat : _____
iv) Damdawi thih hun tur Ni : _____

Damdawi hrang hrang dawnte :

i) Paracetamol Syrup: Aw/Aih
(Naupang khawsik leh taksa chhawkna turin Paracetamol tui pek thin a ni)
ii) Paracetamol Tab : Aw/Aih
(Puitling khawsik leh taksa chhawkna turin Paracetamol mum pek thin a ni)
iii) Ferrous Sulphate Tab : Aw/Aih
(Iron damdawi mumte hi nu leh naupai leh naupang thisen tlachham tanpek thin a ni)
iv) Fura Tab : Aw/Aih
(Fura damdawi mumte hi khawthalo damdawi atan pek thin a ni)
v) ORS packet : Aw/Aih
(Hei hi kawthalo avanga damloten tui leh chi an tlakchham phuhruk nana pek thin a ni)
vi) Cotrimexazol Tab : Aw/Aih
(He damdawi hi Germ infection avanga damlote pek thin a ni)
vii) Metronidazole Tab : Aw/Aih
(He damdawi hi amoeba leh germ infections avanga damlote enkawlna a ni)
viii) Albendazole Tab : Aw/Aih
(He damdawi mum hi Rulhuthlo leh germ infections enkawlna a ni)
ix) Albendazole Syrup : Aw/Aih
(He damdawi tui hi naupang Rulhuthlo leh germ infections enkawlna a ni)
x) Gamma Benzene Hexachloride lotion : Aw/Aih
(He damdawi vuna hnawih chi hi Tuhrik seh, hrikhrah she leh saphihrik seh, adt. Enkawlna a ni)
xi)Malaria enkawlna damdawi: Aw/Aih
xii) TB enkawlna damdawi: Aw/Aih
xiii)Phar enkawlna damdawi: Aw/Aih
xiv) Heng baka damdawi dawn te :

---

29. Sub-Centre tana damdawi mamawh dil anga pek thin an ni em ? : **Thai rawh**
a) Damdawi mamawh dil atangin a zavai 100% pek vek a ni
b) Damdawi mamawh dil atangin a zahve 50% pek thin a ni
c) Damdawi mamawh dil atangin a zahve 50% aia tlem pek thin a ni

30. Sub-Centre atana Building leh Hmanrua awmte chungchanga sawi belh tur/thurawn a awm chuan sawi ni se:

Sub-Centre-a hnathawh chungchang :

1. Raipuarte hi uluk taka chhinchhiah kim vek an ni em ? : Aw/Aih/A changin
2. Sub-Centre ah hianNaupairihnabuk thin a niem ? : Aw/Aih/A changin
3. Nu naupaite san zawng a hun takah tehsak thin a ni em ? : Aw/Aih/A changin
4. Raipuarte Blood Pressure en/check sak thin an ni em ? : Aw/Aih/A changin
5. Thlanga rai hnuah raipuarte dul exam sak thin a ni em ? : Aw/Aih/A changin
6. Raipuar zingah harsatna khirhkhan bik neite tan Sub-Centre atanga hmun dang changtlung zawk kawhhmuhna tha a awm thei em ? : Aw/Aih/A changin
7. Sawrkar in natna laka invenna/Immunization a ruahmante hi Sub-Centre-ah hian a hun takah pekchhuah thin a ni em ? : Aw/Aih/A changin
8. Heng ***Vitamin-A, Iron-Folic Acid,TT Injections, Albendazole tablets,Calcium*** te hi Sub-Centre hian a pe chhuak thin em ? : Aw/Aih/A changin
9. Tuihri, kawthalo leh a kaihnawih enkawlna damdawite hi a awm em ? : Aw/Aih/A changin
10. Khawsik avanga thisen endikna/lakna hmanruate hi a awm em ? : Aw/Aih/A changin
11. Zun Exam-na hmanrua Sub-Centre ah a awm em ? : Aw/Aih/A changin
12. Chhangkhatna hmanrua heng : Copper-T dahte, A mum eichite or Condom-te hi a pe chhuak thin em? : Aw/Aih/A changin
13. Natna tlanglawn heng : Khuh, Khawsik, Luak, Pumna damdawite hi Sub-Centre ah chuan a mamawhtute tan a awm em ? : Aw/Aih/A changin
14. Hliam tuamna hmanrua leh damdawite a awm em ? : Aw/Aih/A changin
15. Malaria enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changin
16. TB enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changin
17. Phar natna enkawlna damdawi mamawhte tan a thlawna sem tur a awm em? Aw/Aih/A changing
18. **Hliam enkawlna** *(a pem lai tihfai, pemthar damdawi hnawih a, tuamsak)* : ***A dik ber thai rawh***
    a) Hliam enkawlna hi Sub-Centre ah tha taka tihsak ziah thin a ni.
    b) A changin hliam enkawlna hi Sub-Centre ah tha taka tihsak a ni.
    c) Hliam enkawlna hmanrua chu a awm, mahse tha ziktluaka tihsak a ni ngai lo.
    d) Hliam tuam hnathawh a awm ngai lo.
19. Inentir turin nghah rei a ngai em ? : Ngai/Ngai lo
20. Sub-Centre ah inentir tura lo nghahna tur thutna a awm em ? : Aw/Aih
21. Damlo an inentir dawnin Sub-Centre ah Doctor/Nurse/Health worker-te hnenah pawisa pek a ngai thin em ? : Aw/Aih
22. Uluk takin damlote hriatthiam theih turin natna dinhmun hrilhfiah a ni em ? : Ni e/Ni lo
23. A theih chinah damlote tha taka lo dawnsawn – an chunga ngilneihna lantir, tih dan kawhhmuh leh tanpui thin- hi damlote tan tangkaiin i hria em? : Hria e/Hrelem lo
24. Damlo nat dan azirin hmundangah Refer an ni thin em? : Thin/Thin lo
25. Sub-Centre in hmundangah refer chuan, khawi hmun nge? :_____
26. Sub-Centre in a rulh let turin natna khirh leh tul bik takah PHC pan turin lirthei in ruahmansak tawh ngai em ? : Aw/Aih/A changin/Rul let tawh ngai e
27. Thla thum kal ta chhung khan Doctor in Sub-Cerntre hi vawi engzatnge damlo en turin a tlawh ?
    : a) Vawi-3 b) Vawi-2 c) Vawi-1 d) Hemi hun chhung hian a tlawh lo
28. Doctor-in Sub-Centre hi a tlawh tawh ngai em? : Aw/Aih/A changin
29. Doctor-in Sub-Centre a tlawh thin chuan kum khatah vawi engzatnge a tlawh ? :

---

30. Khawtual mite hi Doctor-in Sub-Centre a tlawh hun tur Ni hriattir lawk an ni thin em ? : Aw/Aih
31. Thiamna bik nei-Specialist Doctor-ten Sub-Centre hi an tlawh ngai em ? : Aw/Aih
32. ASHA (Acredited Social Health Activist) hi in vengah an awm em ? : Aw/Aih
33. ASHA-te an awm chuan Nu nau hring tur damdawiin ah an hruai ngai em ? : Aw/Aih/A changin/Ka hre lo
34. ASHA te hi Zirtirna/Training pek an ni em ? Aw/Aih/A changin
35. Sub-Centre te hian ASHA kaltlangin damdawi an pe chhuak thin em ? : Aw/Aih /A changing /Sawi belh tur a awm chuan sawi ni se

---

36.ASHA te dinhmun leh thawhhona chungchangah hian sawi belh tur/thurawn a awm em?

_____

37. In Sub-Centre ah in hnathawh thinte ziah chhuahna **Citizens' Charter** Mizo tawnga ziak in tar em? : Aw/Aih/Ka hre lo

38. **Covid-19 enkawlna lam :**

a) Covid-19 dap chhuahna RAT test kits hi Sub-Centre ah a awm em ? : Aw/Aih/A changin

b) RAT test hmangin Sub-Centre ah Covid-19 dap chhuahna a ni em ? : Aw/Aih/A changin

c) Man chawi lovin em ni RAT tests chu in kalpui ? : Aw/Aih

d) Man chawi ni se, engzatnge chawi a ngaih ? Rs._____

e) Covid Vaccine hi Sub-Centre ah pek a ni em ? : Aw/Aih

f) Covid Vaccine hi sub Centre a Health Workers-ten Sub Centre ni kher lo, hmundangah an pe chhuak em ? : Aw/Aih

g) Man chawi lovin em ni Vaccine chu pek a nih ? : Aw/Aih

h) Pawisa chawia Vaccine pek a nih chuan engzat man nge ? Rs. _____

i) Sub-Centre ah hian Covid kai damlo ziaawm deuhte enkawlna pek an ni em ? : Aw/Aih

j) Covid kai damlo ziaawm deuhte damdawia enkawlna man chawi lovin sub-centre ah pek an ni em ? : Aw/Aih

k) Sub-Centre in Covid kai damlo na zual deuhte hmun changtlung zawkah kal turin a kawhhmuh/ refer ngai em? : Aw/Aih

l) Sub-Centre in a rulh let turin Covid damlo na zual khirh leh tul bik takah PHC pan turin lirthei an ruahmansak tawh ngai em? : Aw/Aih/A changin

39. Sub-Centre hnathawh dan hi damloten tha tawk an tiin i hria em?:Aw/Aih/Ka sawi thei lo

40.Sub-Centre a Health Record in siam hi PHC atangin kar tin an rawn endik thin em?: Thin e/Thin Lo/A changin

41. Sub-Centre a Health Record in siam hi Medical Officer/Doctor-in Thla tin an rawn endik thin em ?:Thin e/Thin Lo/A changin

42. Local/Village Health Sanitation and Nutrition Committee ten Sub Centre hnathawh an enpui thin em? Enpui thin e/Enpui lo/A changin

43. Sub Centre a Service pek chhuah chungchang (NCD Services huam telin) sawi belh tur/thurawn a awm chuan sawi ni se:

_____

44. Sub-Center chungchangah thurawn i duh apiang a hnuai ami ang hi **Thai** rawh :

(i) Building changtlung zawk
(ii) Hmanraw tha zawka thuam
(iii) Thawktu dah belh
(iv) Damdawi tam zawk dah belh
(v) Ha enkawlna dah belh
(vi) Mit enkawlna dah belh
(vii) Damdawi man man zawka zawrhna-**Jan Aushadhi Store** awm ve se

(vii) Sub-Centre hi Covid-19 do beihpui thlakna ah hian hei ai hian thawh hlawktir ni se

(viii) Ngaihdan dang awmte sawi lan ni se : _____

45. Sub Centre hi Health and Wellness Centre a hlankai anih tak hnu a,a danglamna sawilan ni se :

_____

46. NCD Services(BP Sang,Zunthlum leh Cancer Screening) hi pekchhuah ani em?Aw/Aih/Ka hrelo/Sawitur dang a awm chuan sawi ni se

_____

47.NCD Services te hi tu in nge kalpui thrin ? Health Worker/Health and Wellness Officer/Thawktu zawng zawng ten/Sawi belh tur a awm chuan sawi nise

_____

48.NCD Services(BP Sang ,Zunthlum leh Cancer Screening) hi a thlawn vek a pek chhuah ani em? Aw/Aih/First Screening ah a thlawn a pek chhuah ania,a hnulam chu hmanraw indaih loh avangin a man lak thin ani. Hemi chungchangah hian sawibelh tur a awm chuan sawi belh nise?

49.Damlo enkawl nan Tele-Consultation hi tih thin ani em? Aw/Aih/Sawi belh tur a awm chuan sawi ni se

50. Sub-Centre a enkawl duh loh/theih loh, hawtir in nei tawh em ? : Aw/Aih
51. Sub-Centre a enkawl duh loh/theih loh, hawtir in neih chuan a chhan sawi lan ni se :

Health Workers tana Chenna tur Quarters chungchang :

1. ANM/MPW te tan Sub-Centre-ah hian awm chilhna tur Quarters a awm em ? : Aw/Aih
2. ANM/MPW te hi Sub-Centre ah hian an awm reng em ? : Aw/Aih

Chennatur Quarters din hmun bihchianna :
(Chenna tur Quarters a awm loh chuan chhan a ngai lo ang)

1. ANM/MPW te tan Sub-Centre ah hian Room hran a awm em? : Aw/Aih
2. Room, bang, rawnghnawih, kawngkharlehtukverhte a thaem? : Aw/Aih/Thavekhat e
3. Chenna tur Quarters atan electric connection hran a awm em ? : Aw/Aih
4. Tui Connection, Motor Tuiphurh, Tuichhunchhuah, Tui-pump-chhuah dahkhawlna tur Tuizem hran a awm em? : Aw/Aih
5. Kawlphetha (electric) leh Tui hnianghnar a pek a ni em ? : Aw/Aih
6. Quarters ah chuan Inbualna/Inthiarna a awm em ? : Aw/Aih

Part II :Mimal chungchang tarlanna *(hi thup tlat a ni ang)* :

1. Chhangtu Hming : _____
2. Hnathawh hming: *Thai tur*
   (i) Health & Wellness Officer
   (ii) Health Worker(Female)
   (iii) Health Worker (Male)
   (iii) A dangte : _____
3. Mipa/Hmeichhia/Adt. _____
4. Kum zat : *Thai tur*
   (i) Kum 25 hnuai lam
   (ii) Kum 25-35 inkar
   (iii) Kum 36-50 inkar
   (iv) Kum 50 chunglam
5. Thiamna (Qualification) : _____
6. Hnathawh rei tawh dan : *Thai tur*
   (i) Kum 0-1 inkar
   (ii) Kum 2-5 inkar
   (iii)Kum 5 chung lam
7. Hemi Sub-Center a thawh rei zawng : _____
8. In chhungkuaa I nihna (Pi/Pu/Pa/Nu/Fapa/Fanu): _____

INDIAN PUBLIC HEALTH STANDARDS(IPHS) FOR SUB-CENTRES

GUIDELINES

(March 2006)

Directorate General of Health ServicesMinistry of Health & Family Welfare Government of India

Contents:

Executive Summary

In the public sector, a Sub-health Centre (Sub-centre) is the most peripheral and first contact point between the primary health care system and thecommunity. As per the population norms, one Sub-centre is established for every5000 population in plain areas and for every 3000 population in hilly/tribal/desert areas. A Sub-centre provides interface with the community at the grass-rootlevel, providing all the primary health care services. As sub-centres are the first contact point with the community, the success of any nation wide programme would depend largely on well functioning sub-centres providing services of acceptable standard to the people. The current level of functioning of the Sub- centres are much below the expectations.

There is a felt need for quality management and quality assurance in health care delivery system so as to make the same more effective, economical and accountable. No concerted effort has been made so far to prepare comprehensive standards for the Sub-centres. The launching of NRHM hasprovided the opportunity for framing Indian Public Health Standards.

In order to provide Quality Care in these Sub-centres, Indian Public HealthStandards (IPHS) are being prescribed to provide basic primary health careservices to the community and achieve and maintain an acceptable standard of quality of care. These standards would help monitor and improve functioning of the sub-centre. Setting standards is a dynamic process. Currently the IPHS for Sub-centres has been prepared

keeping in view the resources available with respect to functional requirement for Sub-centres with minimum standards, such as building, manpower, instruments and equipments, drugs and other facilities etc. The overall objective of IPHS is to provide health care that is quality oriented and sensitive to the needs of the community.

APPENDIX NO.VII
UPDATED LIST OF HEALTH FACILITIES IN MIZORAM

The Mizoram Gazette

EXTRA ORDINARY

Published by Authority

RNI No. 27009/1973 Postal Regn. No. NE-313(MZ) 2006-2008

VOL - L Aizawl, Friday 22.10.2021 Asvina 30, S.E. 1943, Issue No. 475

NOTIFICATION

No. B.19011/6/2019-HFW, the 20th October, 2021: In the interest of public service, the Competent Authority is pleased to notify ***"Updated List of Health Facilities in Mizoram"*** with their jurisdiction (as appended in the Annexure) with immediate effect and until further orders.

This supersedes previous Notification of even no. dt. 9th Sept., 2021.

R. Lalramnghaka,
Secretary to the Govt. of
Mizoram, Health & Family
Welfare Department.

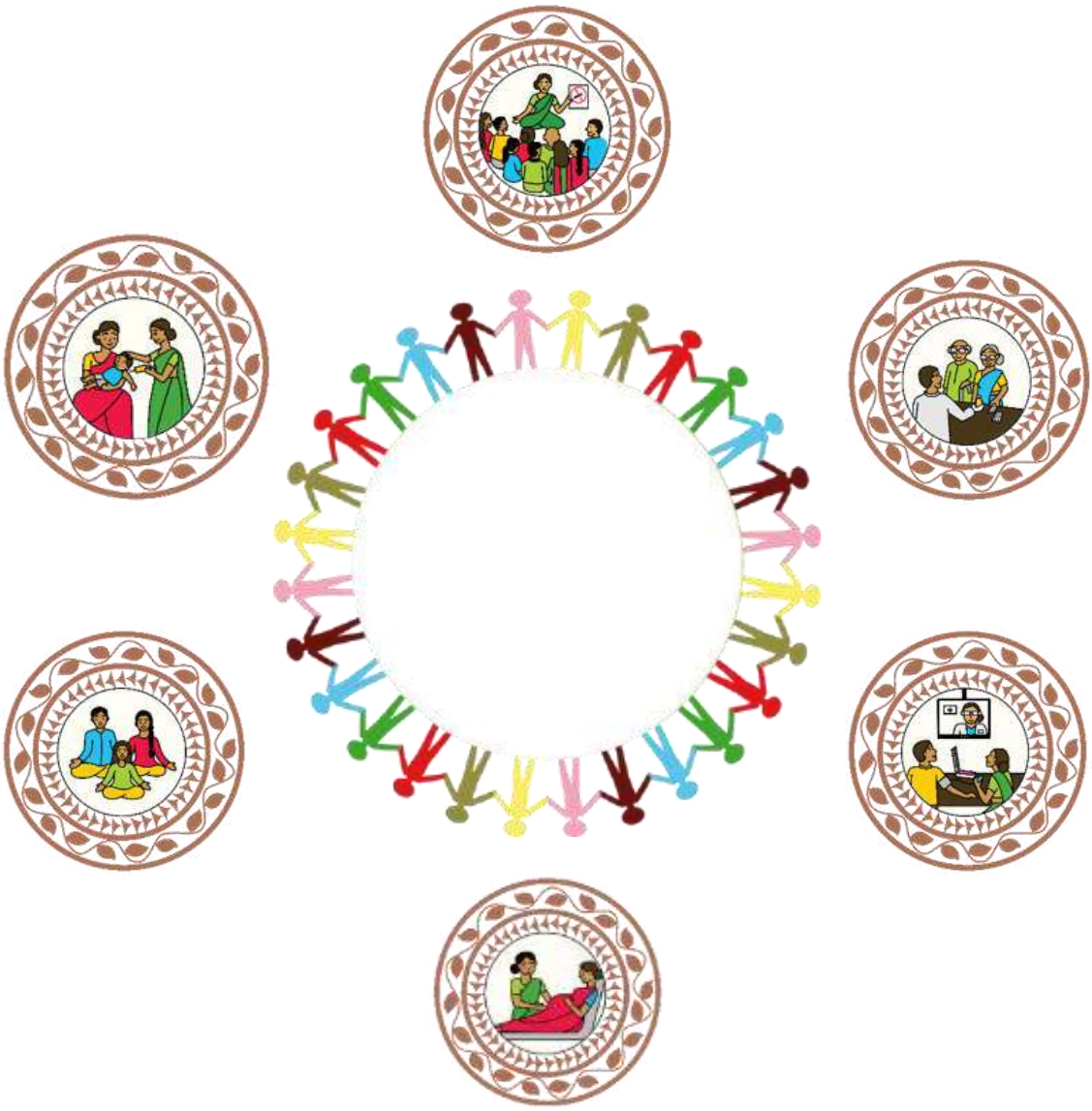
Abstract of Health Facilities in Mizoram as on 23rd September, 2021										
S.No	**District**	**Private Hospitals**	**Tertiary Care Hospital**	**District Hospitals**	**Sub-District Hospitals**	**CHCs**	**PHCs**	**UPHCs**	**Sub-Centres**	**Clinics**
1	Aizawl East	9	1	1	1	2	3	3	41	31
2	Aizawl West	7	0	1	0	1	3	3	34	26
3	Champhai	2	0	1	0	0	5	1	32	15
4	Hnahthial	0	0	1	0	0	5	0	16	5
5	Khawzawl	0	0	1	0	1	4	0	19	10
6	Kolasib	1	0	1	0	1	5	0	26	9
7	Lawngtlai	2	0	1	0	1	6	0	35	18
8	Lunglei	4	0	1	1	0	6	2	57	16
9	Mamit	0	0	1	0	1	10	0	40	10
10	Saitual	0	0	1	0	1	5	0	27	9
11	Serchhip	1	0	1	0	1	5	0	28	7
12	Siaha	1	0	1	0	0	4	0	24	14
Total		**27**	**1**	**12**	**2**	**9**	**61**	**9**	**379**	**170**

APPENDIX NO.VIII
AB-HWC BROCHURE

Ministry of Health & Family Welfare
Government of India

Ayushman Bharat Health and Wellness Centres

Transforming India's Primary Health Care System



2021-22 / 1

Ayushman Bharat- Health and Wellness Centres (AB-HWCs)

Health and Wellness Centres aim to provide Comprehensive Health Care Services (CPHC) closer to the community and reduce financial hardship.

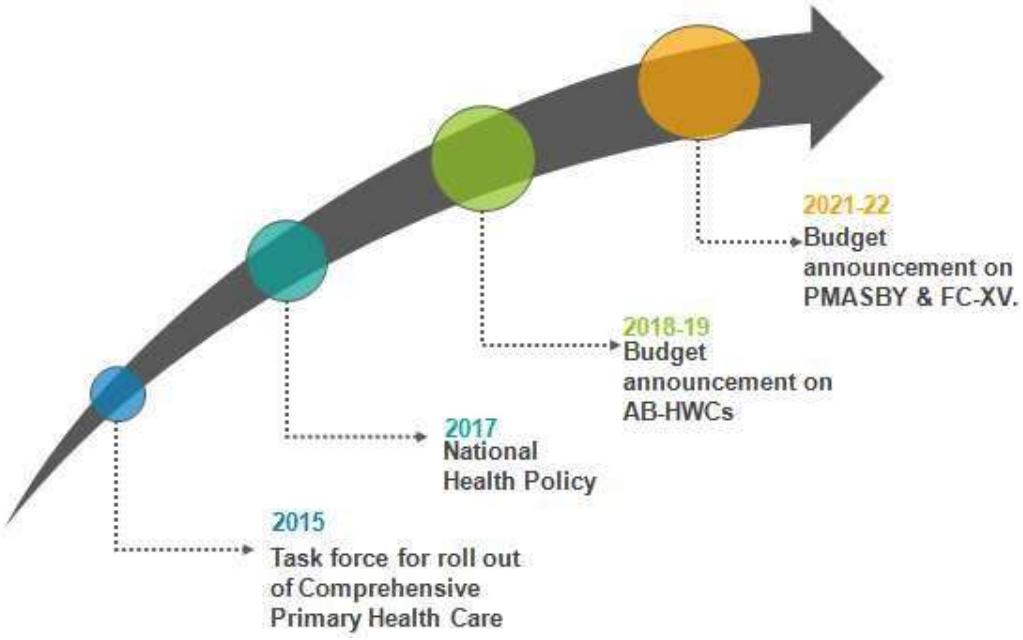
Ayushman Bharat strives for Universal Health Coverage through two inter-related components ; Establishment of **150,000 Health and Wellness Centers (HWCs) by 2022** to provide universal free and quality primary healthcare closer to people's homes and **Pradhan Mantri Jan Arogya Yojana (PM-JAY),** a health insurance cover for poor and vulnerable families.

Ministry of Health and Family Welfare (MoHFW) is transforming existing Sub Health Centres (SHCs), Primary Health Centres (PHCs) and Urban PHCs (UPHCs) across the country into Ayushman Bharat - Health and Wellness Centres (AB-HWCs).

They have been conceptualized to provide Comprehensive Primary Health Care (CPHC), which ensures the highest possible level of health and well-being at all ages, through a set of preventive, promotive, curative and rehabilitative services.

Health and Wellness Centres 2021 Source: https://ab-hwc.nhp.gov.in/home/

Journey So Far



In 2017, the **National Health Policy** was launched, which not only accepted the recommendations of the Task Force for Comprehensive Primary Health Care and endorsed the establishment of Health & Wellness Centres (HWCs), but also stated that two-thirds of the budget be allocated to primary health care.

In the budget speech for Financial Year 2018-19, the **Ayushman Bharat Health & Wellness Centres Programme was announced.**

Health and Wellness Centres 2021 Source: https://ab-hwc.nhp.gov.in/home/

Moving from Selective Primary Care to Comprehensive Primary Health Care

Care in Pregnancy and Child-birth

Neonatal and Infant Health Care Services

Childhood and Adolescent Health Care Services

Reproductive Health Services including Family Planning - Contraceptive Services and Counselling

Management of Communicable Diseases

General Out-patient Care for Acute Simple Illnesses and Minor Ailments

Screening, Prevention, Control and Management of Non-communicable Diseases and Chronic Communicable diseases

Basic Oral Health Care

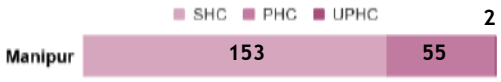
Care for Common Ophthalmic and ENT Problem

Elderly and Palliative Health Care Services

Emergency Medical Services including Burns and Trauma

Screening and Basic Management of Mental Health Ailments

Manipur



Total number of AB-HWCs functional: 210

Footfall

- **Male: 1,28,162**
- **Female: 2,13,044**

Total Screenings : 3,69,203

HTN: 1,15,995

DM: 90,305

3 Common Cancers: 1,62,903

Meghalaya

Total number of AB-HWCs functional: 278

Footfall

- **Male: 5,72,842**
- **Female: 11,02,720**

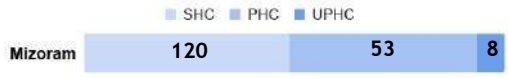
Total Screenings: 6,25,485

HTN: 1,92,543

DM: 1,29,193

3 Common Cancers: 3,03,749

Mizoram



Total number of AB-HWCs functional: 181

Footfall

- **Male: 2,32,489**
- **Female: 3,10,882**

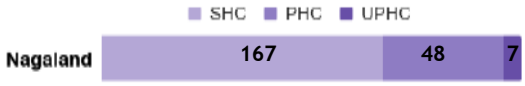
Total Screenings: 1,97,778

HTN: 59,410

DM: 48,999

3 Common Cancers: 89,369

Nagaland



Total number of AB-HWCs functional: 222

Footfall

- **Male: 1,53,269**
- **Female: 1,96,382**

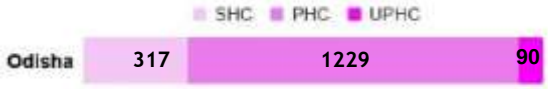
Total Screenings: 3,06,088

HTN: 1,28,166

DM: 65,706

3 Common Cancers: 1,12,216

Odisha



Total number of AB-HWCs functional: 1636

Footfall

- **Male: 1,81,90,820**
- **Female: 1,65,83,093**

Total Screenings: 1,17,69,730

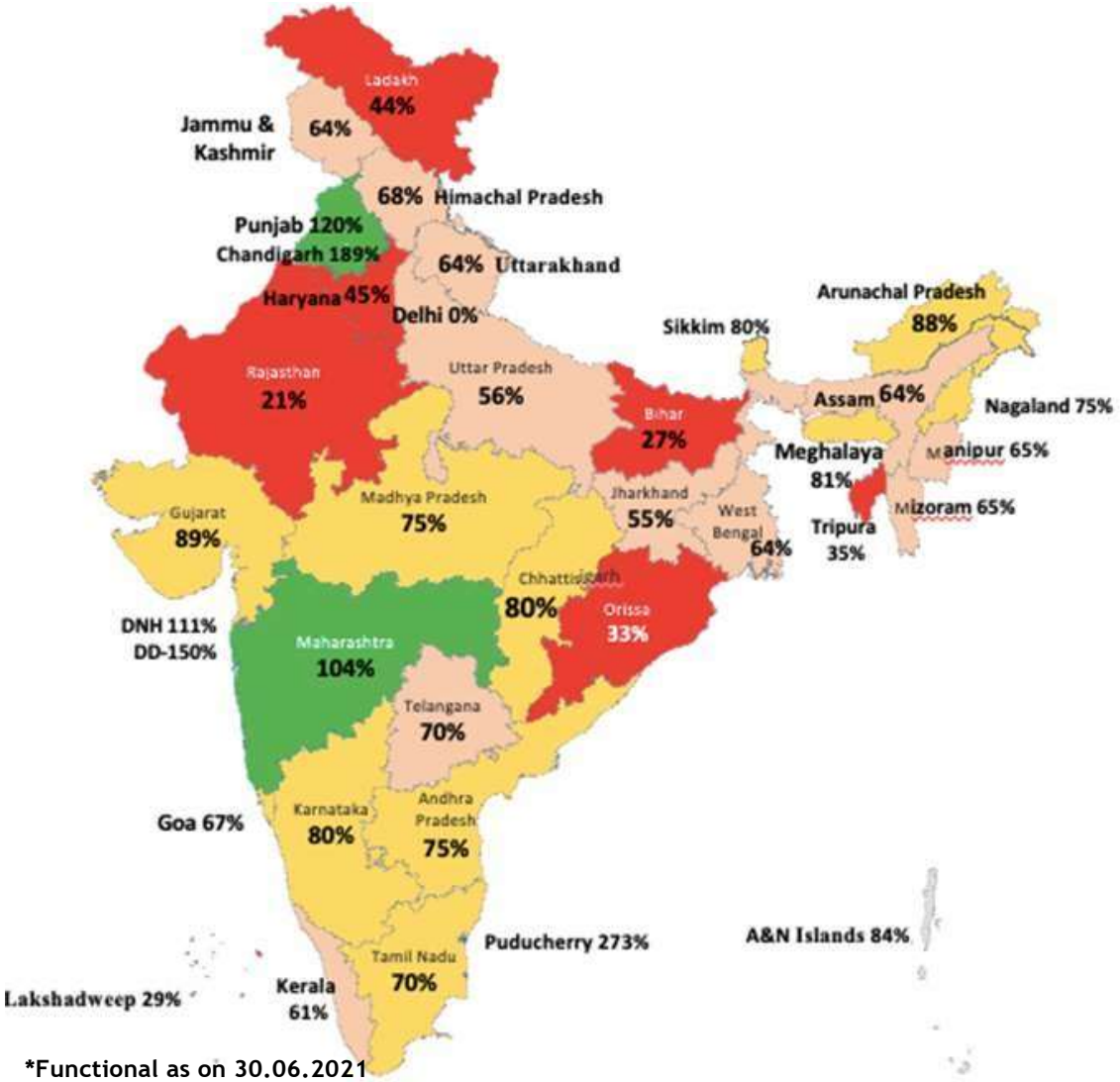
HTN: 40,20,478

DM: 33,45,940

3 Common Cancers: 44,03,312

HWCs Achievement : All the States and UTs

Achievement* against target of FY 2021-22



*Functional as on 30.06.2021

Health and Wellness Centres 2021

Source: https://ab-hwc.nhp.gov

APPENDIX NO.IX

GLIMPSES OF FIELD STUDY

Chanmari West Health & Wellness Centre

Source: Field Study,28.08.2022

Thakthing Sub Health Centre Clinic

Source: Field Study,27.08.2022

Tanhril Health & Wellness Centre

Source: Field Study, 15.08.2022

Tanhril Health & Wellness Centre

Source: Field Study, 15.08.2022

Zarkawt Sub Health Centre Clinic

Source: Field Study, 17.08.2022

Upper Republic Health Sub Centre

Source: Field Study, 20.08.2022

Venghnuai Health & Wellness Centre

Source: Field Study, 21.08.2022

Rahsiveng Health & Wellness Centre

Source: Field Study, 05.07.2022

Electric Veng Health Sub Centre

Source: Field Study, 07.07.2022

Pukpui Health & Wellness Centre

Source: Field Study, 10.07.2022

Theiriat Health & Wellness Centre

Source: Field Study, 09.07.2022

Lunglawn Health Sub Centre

Source: Field Study, 12.07.2022

Luangmual Health Sub Centre

Source: Field Study, 13.07.2022

Zohnuai Health Sub Centre

Source: Field Study, 14.07.2022

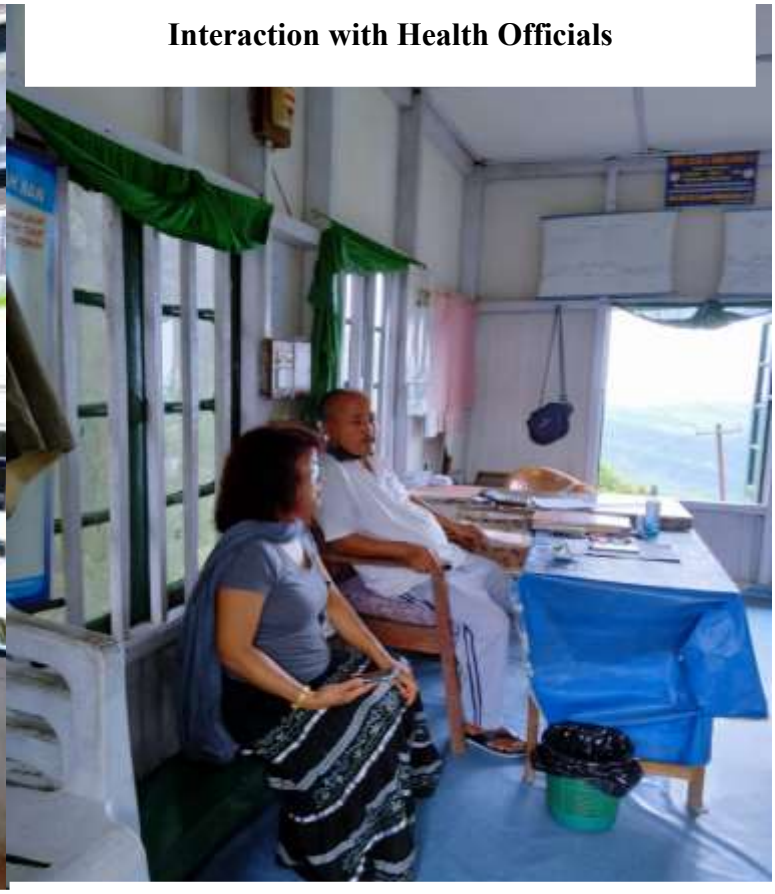
Venghlun Health Sub Centre

Source: Field Study, 22.07.2022

Interaction with Health Officials

Source: Field Study, 04.07.2022

Interaction with Health Officials

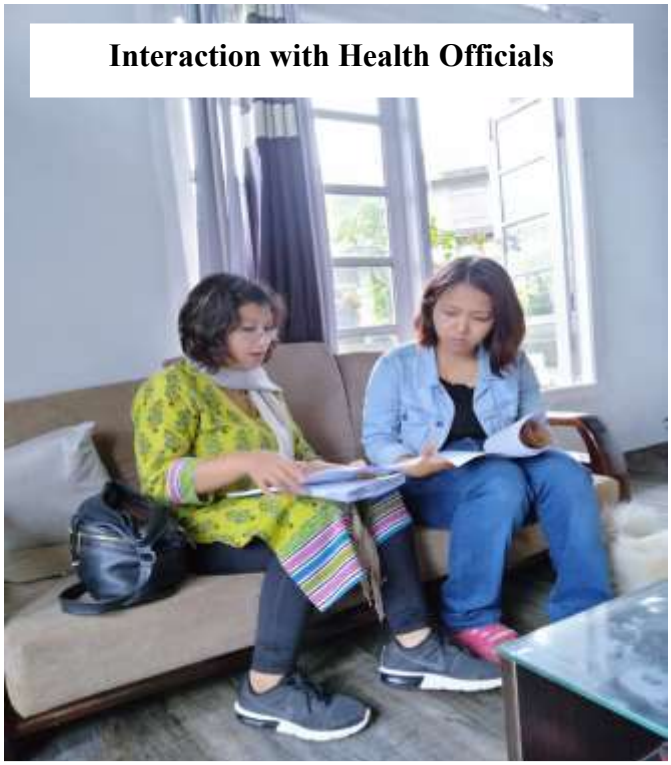


Source: Field Study, 11.07.2022

Interaction with Health Officials

Source: Field Study, 02.07.2022

Interaction with Health Officials



Source: Field Study, 02.07.2022

NCD Screening

Source: Field Study,28.03.2023

Home Visit

Source: Field Study, 30.03.2023

BIBLIOGRAPHY

BOOKS

Ahmad, Alia. et al.(eds.) (2013), *An Institutional Perspective on Provision of Primary Health Care in India and Bangladesh*, New Delhi: Academic Foundation.

Arathi, P.M. (2022), *Public Health in India: Policy Shifts and Trends*, New Delhi Sage Publications.

Bali, Arun. P (ed.) (2001), *Refashioning the New Economic Order*, New Delhi: Rawat Publications.

Barpujari, H.K (1996), Assam in the Days of the Company, North Eastern Hill University Publications, Shillong.

Baru, Rama (1990), *Private Health Care in India: Social Characteristics and Trends*, New Delhi: Sage Publications.

Banerjee, Bratati (2018), *Primary Health Care in Nursing*, New Delhi, AITBS Publishers

Bansal, Mukesh (2023), *Hacking Health: The Only Book You'll Ever Need to Live Your Healthiest Life*, New Delhi, Penguin Viking.

Basham, A.L. (1976), *The practice of Medicine in Ancient and Medieval India*, in Charles Leslie (ed.), Asian Medical Systems: A Comparative Study, University of California Press, Berkeley, Los Angeles, London.

Chakravarthy, K. Kalyan et.al. (2017), *Primary Healthcare Management in India*, New Delhi, Mittal Publications.

Chatterjee, Meera (1998), *Implementing Health Policy*, New Delhi, Manohar Publications.

Gupta, Rajendra Pratap (2016), *Health Care Reforms in India-Making up for the Lost Decades*, New Delhi, Reed Elsevier India Pvt. Ltd.

Govindarajan, Vijay, et al. (2018), *Reverse Innovation in Health Care: How to make Value-Based Delivery Work*, Boston, Massachusetts, Harvard Business

Review Press.

Gupta, Sumedha (2009), *A Textbook of Healthcare Management*, New Delhi: Kalyani Publishers.

Hardy A, Conrad L. (2001), *Women and Modern Medicine*, Amsterdam: Editions Rodopi B.V.

Hiramani, A.B. (2016), *Health Education in Primary Health Care*, New Delhi: B.R. Publishing Corporation.

Hluna, J.V. (2016) 'Mizoram Welsh Missionary-te Chanchin' (Revised and Enlarged), The Synod Press, Aizawl, Mizoram.

Hooja, Rakesh et al.(eds.) (1993), *Decentralized Planning in Multilevel Framework*, New Delhi: Rawat Publications.

Jamison, Jennifer R. (2019), *Maintaining Health in Primary Care: Guidelines for Wellness in the 21st Century*, Elsevier.

Kalyan, Chakravarthy. et al., (2017), *Primary Healthcare Management in India*, Mittal Publications, New Delhi.

Kishore, J. (2022), *National Health Programs of India*, New Delhi, Century Publications.

Kumar A. (1998), *Medicine and the Raj: British Medical Policy in India*, New Delhi, Sage Publications.

Last, J.M, (ed),*A Dictionary of Epidemiology*, Oxford University Press, New York.

Lloyd, J. Meirion (1991), *History of the Church in Mizoram: Harvest in the Hills*. Synod Publication Board.

Mogli, G.D (2023), *Healthcare Economics Management*, New Delhi, CBS Publishers and Distributors.

Naik, Ashwin (2019), *The Healthcare Gamechangers: 12 Innovators Around the World Reimagining Healthcare*, New Delhi, Bookswagon.

Pachuau, Rintluanga (2013), *Mizoram A study in Comprehensive Geography*, Northern

Book Centre, New Delhi,

Pandya, Rameshwari (2009), *Health family planning and nutrition in India*, New Delhi, New Century Publication.

Parveen, Shaila (2017), *Health Services in India*, Bharati Prakashan, Varanasi

Prasad, R.N and Aggarwal, A.K. (2003) (ed.). *Modernization of Mizo Society*, Mittal Publications, New Delhi.

Qadeer, Imrana, et al. (eds.) (2001), Public *Health and the Poverty of Reforms: The South Asian Predicament*, New Delhi: Sage Publications.

Ranga Rao, S.P (1993), *Administration of Primary Health Centres in India: A Study from the Three Southern States*, New Delhi: Mittal Publications.

Rao, K.S (2017), *Do we care? India's Health Care System*, New Delhi: Oxford University Press.

Rashmi, Soni (2012), *Health Education and Administration*: Atlantic Publishers.

Ray, Animesh (1982), *Mizoram Dynamic of Change*, Pearl Publisher, Calcutta.

Sangkima(ed) (2004), *A Modern History of Mizoram*, Spectrum Publications, Guwahati: Delhi.

Saxena, K.B. (2010), *Health Policy and Reforms-Governance in Primary Healthcare*, New Delhi: Aakar Books.

Schmidt-Stiedenroth, Kira. .(2020) "Unani Medicine and Muslims in India". *Unani Medicine in the Making: Practices and Representations in 21st-century India*, Amsterdam: Amsterdam University Press.

Sharma, Manu (2016), *Ancient Ayurvedic medical rituals and healing traditions in Vedic texts* in Man In India, 96 (4), Serials Publications.

Sodani, P.R (2010), *Managing Quality In Health Care*, New Delhi: Rawat Publications.

Singh, A.P.K (2016), *Political Scenario of Mizoram: Past and Present*, Mittal

Publications, New Delhi,

Tabish, Syed Amin (2000), *Health Planning: Past, Present & Future* in Syed Amin Tabish (ed.), Hospital & Health Services Administration: Principles & Practice, New Delhi: Oxford University Press

Thanga, James L.T. (2013), *An evaluation of Mizoram State Health Care Scheme*, Funded by Asian Development Bank.

Vikas, Sunder Lal (2022), *Public Health Management, Principles and Practices*, New Delhi, CBS Publishers.

ARTICLES

Agarwal, Arun K (2008), 'Strengthening Health Care System in India: Is Privatization the Only Answer', *Indian Journal of Community Medicine*, 33(2).

Bashar, M.A. et al. (2017), 'Are our Sub Centres equipped enough to provide primary health care to the community: A study to explore the gaps in workforce and infrastructure in the subcentres from North India', *Journal of Family Medicine and Primary Care*, Apr-Jun;6(2):208-210

Bhaumik, Soumyadeep (2014), 'Health and Beyond...Strategies for a Better India: A concept paper on Primary health care in India', *Journal of Family Medicine and Primary Care*,2014 Apr-Jun;3(2):94-97.

Chokshi, M. et al,(2016), 'Health Systems in India', *Journal of Perinatology*,36 (Suppl 3).

Chokshi, M., Farooqui, H., Selvaraj, S., et al., 'A Cross-Sectional Survey of the Models in Bihar and Tamil Nadu, India for Pooled Procurement of Medicines', *WHO South-East Asia Journal of Public Health*, Jan.–June 2015 4(1).

Costa, Lourdes Bravo Da (1987) 'Medical conditions in Goa of 16th and 17th Centuries: A study of foreign travelogues' in *Bull. Ind. lnsr , Hist, Med*. Vol. XVII.

Dar, Khursheed Hussain (2015), 'Utilization of the services of the Primary Health

Centres in India-An Empirical Study', *Journal of Health, Medicine, and Nursing,* Vol. 16,2015.

Deka, Mina Kumari (2012), 'Religion of the Mizos before their Conversion to Christianity', IJCAES Special Issue on Basic, Applied & Social Sciences, Volume II, October 2012.

Gupta, I. and Chowdhury, S. (2014) 'Public Financing for Health Coverage in India: Who Spends, Who Benefits and At What Cost?', *Economic & Political Weekly,* Aug. 30, 2014, 49(35).

Harvey, Conrad (2006), 'A Buddhist Perspective on Health and Spirituality' in *Scottish Journal of Healthcare Chaplaincy,* Vol. 9. No. 1.

Jawahar, S. K. (2006/2007), 'Healthcare Scenario in India' in *ICU Management and Practise,* ICU Volume 6-Issue 4-Winter 2006/2007

Kalra, Sanjay et al. (2018), 'Lessons for the Healthcare Practitioner from Buddhism' in *Indian J Endocrinol Metab.* 2018 Nov-Dec; 22(6): 812–817

Kumar, P. (2016), 'How to strengthen Primary Health care', *Journal of Family Medicine and Primary Care,* Vol-5, Issue-3.

Lahariya, Chandrakant (2019), 'More, better, faster &sustained: Strengthen Primary Health care to advance Universal Health Coverage', *Indian Journal of Medical Research,* Volume 149, Issue:4.

Mills, Anne, et al.(2013), 'An Assessment of the Quality of Primary Health Care in India', *Economic and Political Weekly,* Vol. 48, Issue No.19,11 May 2013.

Mukherjee, Reema et al (2018), 'India's national health protection scheme: A preview'. *Medical Journal of Dr. D.Y. Patil Vidyapeeth*. 11 (5): 385.

Mukhopadhyay, Amiya Kumar (2013) 'Skin in health and diseases in Rigveda Samhita: An Overview', *Indian Journal of Dermatology* vol. 58, Issue No.6.

Mushtaq, Muhammad Umair (2009) 'Public health in British India: A brief account of the history of medical services and disease prevention in colonial India',*Indian*

Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine vol. 34,1

Narayana, A. (1995), 'Medical Science in Ancient Indian Culture with special reference to Atharva Veda' in Bulletin of the *Indian Institute* of *History* of Medicine, Vol. XXV

Pandve, H.T. et al, (2013), 'Primary Health Care in India: Evolution and Challenges', *International Journal of Health System and Disaster Management*, Vol-1, Issue-3.

Pettigrew, Luisa & Maeseneer, Jan & Anderson, Maria & Essuman, Akye & R Kidd, Michael & Haines, Andy. (2015), 'Primary health care and the Sustainable Development Goals', *The Lancet*., Vol 386.

Qadeer, Imrana (1995),' Primary Healthcare: A Paradise Lost', *IASSI Quarterly*, Vol.14, Nos 1&2

Rajgopal L, Hoskeri GN, Bhuiyan PS, Shyamkishore K.(2002), 'History of Anatomy in India', *J Postgrad Med*,48:243-5.

Rao, K.D. et al, (2015), 'Urban Health in India: Many Challenges, Few Solutions", *The Lancet Global Health*, Vol-3, No.12.

Reddy, N Bayapa, et al. (2012), 'Study on the availability of physical infrastructure and manpower facilities in sub-centers of Chittoor district of Andhra Pradesh', *Indian Journal of Public Health,* Volume 56, Issue No 4,290-292.

Remsanga, K.L. et al (2018), 'Progress of Civil Hospital, Aizawl',19th Annual Magazine of MGDA.

Rifkin S. B. (2018), 'Alma Ata after 40 years: Primary Health Care and Health for All-from Consensus to Complexity', *BMJ Global Health, 3*(Suppl 3).

Rushender, Rajan et . al(2016), 'A study of effective utilization of health care services provided by primary health centers and sub-centres in rural Tamilnadu',*International Journal of Community Medicine and Public*

Health, Vol 3,No.5,2016

Sachs, Jeffrey D. 'Macroeconomics and Health: Investing in Health for Economic Development,(Geneva:WHO,2001)

Saleem, Sheikh Mohd et al(2017), 'Sub-Center health profiling and health care delivery services in rural community of northern India', *Annals of Tropical Medicine and Public Health*, Volume 10,Issue 2.

Sekher, T.V (2005), 'Health Care for the Rural Poor: Decentralisation of Health Services in Karnataka, India' *in Paper presented at the Annual Conference of the Population Association of America*(PAA), Philadelphia, USA. Also available at www.popassoc.org

Siddiqi, Tazimuddin (1978) 'Unani Medicine in India during the Delhi Sultanate', Studies in History of Medicine, Vol. 2, no.3, 1978,

Stokes, J. et.al.(1982) 'Definition of terms and concepts applicable to clinical preventive medicine', *Journal of Community Health* ,8:pp.33-41

Suniel, Deshpande et al. (2017), 'Healthcare Challenges in Rural India', *Indian Journal of Public Health Research and Development*, Volume 8, Issue No 4,735-742.

Thangdailova, B. (2003) 'Modernization of Health Care Services in *Mizoram' in Prasad, R.N and Aggarwal*, A.K. (ed.). 'Modernization of Mizo Society', *Mittal Publications, New Delhi*, p.30 Vol-5,Issue-3.

Tipton, Charles M. (2013\4) 'The history of "Exercise Is Medicine"', *Advances in Physiology Education*, The American Physiological Society

Vingilis & Sarkella, Social Indicators Research 1997;40:159

Yeravdekar, R. et al, (2014), 'Strengthening of Primary Health Care: Key to Deliver Inclusive Health Care', *Indian Journal Of Public Health*,Vol-57,Issue-2.

OFFICIAL RECORDS

Alma Ata Declaration,1978

ASSAM ACT XXI of 1954,The Assam Lushai Hills District (Acquisition of Chiefs' Rights) Act,1954 published in the Assam Gazette,dated the 27th July,1955

Economic Survey of Mizoram 2021-2022,Govt.of Mizoram

Census of India,1961 Assam DISTRICT CENSUS HANDBOOK MIZO HILLS E. H. PAKYNTEIN of the Indian Administrative Service Superintendent' of Census Operations.,. Assam ,Printed at the Tribune Press,. Gauhati and published by the Government of Assam 1965

Economic Survey of Mizoram,2021-22

Govt. of India(1981),Report of the Working Group on Health for All by 2000 A.D,Ministry of Health and Family Welfare.

Government of India. 2017. A Report on Cancer Burden in North Eastern States of India, 2017. National Centre for Disease Informatics and Research and Indian Council of Medical Research

Health Promotion: A discussion document on the concept and principles of health promotion, Copenhagen, 9-13th July, WHO, 1984.

Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog.

Health Policy of Mizoram State,2022,Health and Family Welfare Department, Government of Mizoram

Human Development Report,2020

Human Development Report,2020, **The Next Frontier: Human Development and the Anthropocene** ***Briefing note for countries on the 2020 Human Development Report***

India HIV Estimates Report 2019, National AIDS Control Organisation & ICMR-

National Institute of Medical Statistics ,Ministry of Health and Family Welfare, Government of India.

Indian Public Health Standards(IPHS),Guidelines for Community Health Centres, Revised 2012,Directorate of Health Services, Ministry of Health and Family Welfare, Government of India.

Indian Public Health Standards(IPHS),Guidelines for Primary Health Centres, Revised 2012,Directorate of Health Services, Ministry of Health and Family Welfare, Government of India.

Indian Public Health Standards(IPHS),Guidelines for Sub-Centres, Revised 2012,Directorate of Health Services, Ministry of Health and Family Welfare, Government of India.

Key Indicators of Social Consumption in India on Health, National Sample Survey 71st Round,2014,Ministry of Statistics and Programme Implementation, GOI

Ministry of Health and Family Welfare, Annual Report, Chapter 1: Organization and Infrastructure, 2015.

Mission document, National Rural Health Mission. Available from: : http://www.mohfw.nic.in/NRHM/Documents/Mission_Document.pdf

Mizoram Health Systems Strengthening Project Environmental and Social Management Framework Executive Summary,Nov 2020

National Health Policy Draft, 2015 available on https: //www.nhp.gov.in/sites/default/files/pdf/draft_national_health_policy_2015.pdf viewed on 02.09.2018

Official Records of the Planning Section,Directorate of Health Services,Government of Mizoram,2018.

Overview of Health Status in Mizoram, Department of Health and Family Welfare, Government of Mizoram 2018

Parliament of India, Rajya Sabha, The Functioning of Medical Council of India (Ministry

of Health and Family Welfare), Report No. 92, March 8, 2016.

Planning Commission of India, High Level Expert Group Report on Universal Health Coverage for India, Nov. 2011.

Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19 June - 22 July 1946 (it entered into force on 7 April 1948)

Press Information Bureau,Government of India,Cabinet Dated 21st March,2018 ,Release ID : 177816, 20:29 IST

Press Information Bureau, Government of India, Posted On: 13 JAN 2022 2:51PM ,Release ID: 1789635) Visitor Counter : 180722.

Profile of Cancer and Related Health Indicators in the North East Region of India-Mizoram,ICMR-National Centre for Disease Informatics and Research.

Special Bulletin on Maternal Mortality in India 2016-2018

SRS Bulletin Survey, Sample Registration Sytem Volume 53,No.1,May 2020

Statistical Handbook Mizoram 2020

Sustainable Development Goals-Mizoram Vision 2030, Planning and Programme Implementation Department, Government of Mizoram.

Three-year report of population-based cancer registry 2012-14, Indian Council of Medical Research.

The Mizoram Gazette Extraordinary No.B.19011/6/2019-HFW,the 20th October,2021.

United Nations . *World population prospects.* Population division New York: Department of Economic and Social Affairs; 2017.

United Nations General Assembly , 1974. Resolution adopted by the General Assembly 3201 (S-VI): declaration on the establishment of a new international economic order

World Health Organization: The Constitution of the World Health Organization. WHO

Chronicle 1:29, 1944.

WHO (1987),Seventh Rep. World Health Situation,Vol 1.

WHO (1987), Techn .Rep.Ser.,No.746.

World Health Organization *Primary Health Care: Report of the International Conference on Primary Health Care Alma Ata, USSR, 6–12 September 1978*. Geneva, Switzerland, 1978.

WHO. Non Communicable Diseases; Country Profile for India; 2014

INTERNET SOURCES

Censusindia.gov.in/2011census/dchb/DCHB_A/.../1503_PART_A_DCHB_AIZAWL.pdf viewed on 19.10.2018.

Department of Pharmaceuticals, Jan Aushadhi: A Campaign to Ensure Access to Medicines for All; viewed on 03.09.2018

http://www.un.org/en/universal-declaration-human-rights/index.html viewed on 01.09.2018

http://www.who.int/about/mission/en/ viewed on 01.09.2018

https://international.commonwealthfund.org/countries/india/ viewed on 02.09.2018

https://www.mapsofindia.com/mizoram/ viewed on 19.10.2018

Primary health care and the Millennium Development Goals: issues for discussion Pertti Kekki, MD, ScD; Professor of General Practice and Primary Health Care; University ofHelsinki, Finland (pertti.kekki@helsinki.fi) available at https://pdfs.semanticscholar.org/d4e0/52b93043cd8a36607c4b93f08805329df509.pdf viewed on 20.10.2018

World Health Organization (WHO), Universal Access to Medicines in India. A Baseline Evaluation of the Rajasthan Free Medicines Scheme, 2014; viewed on 03.09.2018

www.medicine.uottawa.ca/sim/data/Health_Definitions_e.htm viewed on 01.09.2018

Gupta, Indrani and Bhatia, Mrigesh, "The Indian Health Care System", London School of Economics and Political Science found in https://international.commonwealthfund.org/countries/india/ viewed on 03.09.2018

https://health.mizoram.gov.in/ viewed on 02.04.2018

planningcommission.gov.in/ viewed on 02 .04.2018

shodhganga.inflibnet.ac.in/viewed on 01 .04.2018

www.mizoramonline.in/ viewed on 01 .04.2018

www.mizoramstat.com/ viewed on 01 .04.2018

https://en.wikipedia.org/wiki/COVID-19 viewed on 01.06.2021

https://www.mygov.in/covid-19/ viewed on 01.06.2012

https://en.wikipedia.org/wiki/COVID-19_vaccination_in_India viewed on 01.06.2021

https://www.indiatoday.in/coronavirus-outbreak/vaccine-updates/story/full-list-of-states-providing-free-covid-19-vaccine-from-may-1-1795067-2021-04-26 viewed on 01.06.2021

Worldometer elaboration of the latest United Nations data, "India Population (2021) - Worldometer" available on https://www.worldometers.info/world-population/india-population/ viewed on 15th June,2021

https://theprint.in/pageturner/excerpt/king-ashokas-hospitals-to-rural-health-mission-how-the-indian-medical-system-evolved/746649/n

https://aeon.co/essays/ashokas-ethical-infrastructure-is-carved-into-indias-rocks

https://www.nationalgeographic.com/culture/article/ashoka

BIO-DATA OF THE CANDIDATE

Name of the candidate	:	MARIE ZODINPUII
Father's/Mother's Name	:	Lalthanzuali
Address	:	EDELWEISS H/No.40, Zokhawsang Veng, Cancer Hospital Road, Zemabawk, Aizawl-796017
Contact	:	9436159349 Email: mariesisepi@gmail.com

Educational Qualifications

Examination	**Board/University**	**Year**	**Division/Grade**
HSLC	MBSE	1992	D
PUC (Sc)	NEHU	1995	I
BA	NEHU	1998	II
MA	NEHU	2000	I (Gold Medallist)
NET&JRF	UGC	1999	
M.Phil	MZU	2019	A^+

Ph.D. Regd. No. and Date: MZU/Ph.D./1354 of 26.07.2019

PARTICULARS OF THE CANDIDATE

Name of the candidate	:	MARIE ZODINPUII
Degree	:	Ph.D.
Department	:	Public Administration
Title of the Thesis	:	Health Administration in Mizoram: A Study of Functioning of Health Sub-Centres
Date of Payment for Admission	:	26.07.2019
Approval of Research Proposal		
1..B.o.S in P. A	:	29.05.2020
2. School Board	:	12.06.2020
MZU Registration No.&Date	:	1702974
Ph.D Registration No & Date	:	MZU/Ph.D./1354 of 26.07.2019

(PROF. SRINIBAS PATHI)

Head,
Department of Public Administration,
Mizoram University

ABSTRACT

HEALTH ADMINISTRATION IN MIZORAM: A STUDY OF FUNCTIONING OF HEALTH SUB-CENTRES

AN ABSTRACT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

MARIE ZODINPUII

MZU REGISTRATION NO: 1702974

Ph.D. REGISTRATION NO: MZU/Ph.D./1354 of 26.07.2019

DEPARTMENT OF PUBLIC ADMINISTRATION

SCHOOL OF SOCIAL SCIENCES

MAY, 2024

HEALTH ADMINISTRATION IN MIZORAM: A STUDY OF FUNCTIONING OF HEALTH SUB-CENTRES

BY
Marie Zodinpuii
Department of Public Administration

Prof. Srinibas Pathi
Supervisor

Submitted
In partial fulfillment of the requirement of the Degree of Doctor of Philosophy in Public Administration of Mizoram University, Aizawl

INTRODUCTION

A nation's progress and growth are critically dependent on its health. Since development ultimately aims to improve people's quality of life by providing them with chances for a richer, happier, and more diversified existence. Health ranks exceptionally high among the developmental variables contributing to a fuller, happier existence.

In terms of resources, nothing can be of higher value to a nation than the health and well-being of the people. In this context, the report of the Commission on Macroeconomics and Health (MCH)[1] published by the WHO established the link between health and wealth by arguing that healthy people generate wealth, and ill health and disease significantly impact the growth momentum. In an aging world, India's 40 percent young and productive population can be, and is an enviable advantage, but only if they are healthy. Sick people do not produce wealth.

HEALTH, HEALTHCARE, AND PRIMARY HEALTHCARE

The WHO constitution precisely defines health as: "Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity." This definition emphasizes that health encompasses far more than the absence of ailments; it entails a comprehensive state of being that includes physical wellness, mental equilibrium, and a sense of social connectedness and harmony. In essence, health encompasses the optimal functioning of the body and mind, enabling individuals to unlock their inherent capabilities and make meaningful contributions to their communities and society.

The realm of healthcare encompasses a wide spectrum of individual health-related services, spanning from the dissemination of health education and information to the prevention of diseases, early detection, and treatment, as well as rehabilitation. The term "health services" not only encapsulates the provision of care but also entails

[1]Jeffrey D. Sachs (2001), '*Macroeconomics and Health: Investing in Health for Economic Development*'(Geneva:WHO,2001)

the organization, delivery, staffing, regulatory oversight, and mechanisms for ensuring quality control within the healthcare system.

Primary Health Care is the first level of healthcare and is the first and foremost level of contact of individuals, families, and communities with the health system of the state. It forms the base of all health care delivery services in a country and is most effective and closest to the people. Primary health care (PHC) is essential health care made universally accessible to individuals and acceptable to them, through full participation and at a cost the community and country can afford. Primary healthcare is a vital strategy that remains the backbone of health service delivery. Primary Health Care embodies certain fundamental values common to the process of overall development. It is a key to the achievement by the people a level of health that permits them to lead a socially and economically productive life.

India's recognition of PHC's significance predates the Alma-Ata Declaration of 1978. Early on, India adopted a PHC model emphasizing that financial constraints should not hinder healthcare access. The Bhore Committee Report of 1946, chaired by Sir Joseph Bhore, laid the groundwork by prioritizing community participation and social orientation in healthcare delivery. The Community Development Programmeme, launched in 1952 during the first five-year plan, solidified this approach by establishing primary health centres (PHCs) and sub-centres for accessible and affordable healthcare tailored to local needs and preferences. This strategy aimed for more equitable health service distribution while empowering individuals and families to make informed health decisions. In India's close-knit family culture, enabling people with knowledge and skills for informed choices is crucial. PHC encompasses a holistic range of services delivered through health institutions, workers, groups, and the community.

Alma-Ata Declaration (1978) further strengthened the global commitment to PHC, recognizing it as the essential basis for achieving health for all. It emphasized equitable access to healthcare, community involvement, and multisectoral collaboration to enhance overall well-being.

HEALTHCARE ADMINISTRATION IN MIZORAM

Mizoram's healthcare journey began through collaboration between the British imperial government and Christian missionaries. Modern healthcare entered with the establishment of the Synod Hospital in Durtlang by Welsh Presbyterian Church missionaries in 1928. Baptist Mission also contributed significantly. The Aizawl Civil Hospital's founding in 1894 initiated formal medical facilities. Healthcare bridges were built through dispensaries and hospitals between 1896 and 1947, further expanding post-independence.

The Health Department's inception in 1972 showcased Mizoram's healthcare commitment. Over time, it shaped policies, programmes, and medical services coordination. Early dedication to primary healthcare led to numerous Primary Health Centres (PHCs) by 1966. After attaining statehood in 1986, extensive growth resulted in a widespread network of primary care facilities.

Today, Mizoram boasts an inclusive healthcare network including sub-centres, clinics, health and wellness centres and primary health centres. These serve as crucial hubs for disease prevention, timely detection, and effective management. The state's evolving healthcare landscape highlights its dedication to comprehensive and accessible services. Continuous infrastructure expansion emphasizes Mizoram's determination to ensure the well-being of its diverse population. This devotion to primary healthcare underscores the state's focus on quality health services, recognizing the pivotal role of a healthy populace in overall national progress.

REVIEW OF LITERATURE

Public health and primary healthcare are highly significant for government administration scholars and writers. However, there is a notable lack of systematic research on the operations of Mizoram's Health Sub Centres. While a few studies touch on specific healthcare aspects in the region, comprehensive research is lacking. The selected literature is chosen for its relevance and reviewed to support the proposed research:

- *Administration of Primary Health Centres in India* by S.P. Ranga Rao (1993) critically evaluates rural healthcare services, stressing the need for prompt solutions and highlighting resource shortages and skewed emphasis on curative aspects.
- In the edited volume *Modernisation of the Mizo Society* (2003) by R.N. Prasad and A.K. Agarwal, an article titled 'Modernisation of Health Care Services in Mizoram' provides insights into healthcare evolution and policies in the state.
- Sumedha Gupta (2009) in *A Textbook of Health Care Management* offers an international outlook on the Indian healthcare system, focusing on leadership and reforms.
- K.B. Saxena's (2010) *Health Policy and Reforms-Governace in Primary Health Care* is an exploration of rural Indian healthcare and covers governance, healthcare providers, and primary-level functions.
- Ahmad et al.'s (2013) work, *An Institutional Perspective on the Provision of Primary Health Care in India and Bangladesh* emphasizes local leadership and NGOs as pivotal in efficient healthcare delivery.
- A.B. Hiramani's (2016) *Health Education in Primary Health Care* emphasizes knowledge dissemination and health educators' role in tackling health issues in rural India.
- R.P. Gupta's (2016) *Health Care Reforms in India-Making up for Lost Decades* extensively overviews healthcare systems in India and globally.
- *Health Care Services in India* by Shaila Parveen (2017) delves into the roots of India's healthcare system, encompassing challenges and cultural influences.
- *Primary Healthcare Management in India* written by K. Kalyan Chakravarthy and T. Sreenivas (2017) spotlights management functions in Andhra Pradesh's PHCs.
- K.S. Rao (2017) in *"Do We Care? India's Health Care System"* highlights India's historically inadequate health budget and calls for prioritizing health in development to prevent millions from falling into poverty due to medical expenses.

- *Primary Health Care in Nursing* by Dr. Bratati Banerjee (2018) discusses Community Health Nursing's role in promoting health within communities.
- Vijay Govindarajan and Ravi Ramamurti's (2018) *Reverse Innovation in Health Care* proposes innovative strategies for providing high-quality healthcare at affordable costs.
- The book *Maintaining Health in Primary Care: Guidelines for Wellness in the 21st Century* (2019) by Jennifer R. Jamison emphasizes wellness and preventive care.
- Ashwin Naik's (2019) *The Healthcare Gamechangers: 12 Innovators Around the World Reimagining Healthcare* showcases transformative healthcare visionaries.
- J. Kishore's (2022) *National Health Programmes of India* offers an updated guide to healthcare initiatives and programmes in India.
- P.M. Arathi(2022) in his book *Public Health in India: Policy Shifts and Trends* analyses evolving public health policies and trends in India.
- Sunder Lal Vikas's (2022) study entitled *Public Health Management, Principles and Practice* addresses a wide range of healthcare elements, including the COVID-19 pandemic.
- The book titled *Healthcare Economics Management* authored by G.D. Mogli(2023) offers a detailed examination of the interplay between healthcare and economics. Structured into three sections covering health economics, healthcare delivery, and nursing practices, the book provides novel approaches to reducing healthcare expenses and includes a healthcare economics dictionary.
- *Hacking Health: The Only Book You'll Ever Need to Live Your Healthiest Life* authored by Mukesh Bansal(2023) presents a unique perspective on navigating health and wellness in contemporary society.

The listed papers and articles also contribute to the understanding of primary healthcare and healthcare delivery:

- 'Strengthening Health Care System in India: Is Privatisation the Sole Solution?' by Arun K Agarwal (2008) in *Indian Journal of Community Medicine* explores the role of public-private partnerships in healthcare.
- 'Study on the Availability of Physical Infrastructure and Manpower Facilities in Sub Centre of Chittoor District of Andhra Pradesh' by N Bayapa Reddy et al. (2012) in *Indian Journal of Public Health* evaluates healthcare facilities, revealing shortages in manpower and infrastructure, affecting compliance with standards.
- 'Primary Health Care in India: Evolution and Challenges' by H.T Pandve et al. (2013) in *International Journal of Health System and Disaster Management* chronicles the growth of India's primary healthcare system, while highlighting constraints and emerging challenges.
- 'An Assessment of the Quality of Primary Health Care in India' by Anne Mills et al. (2013) in *Economic and Political Weekly* quantitatively and qualitatively analyzes the quality of primary healthcare across regions, investigating correlations with government rankings.
- 'Health and Beyond: Strategies for a Better India - Concept Paper on Primary Healthcare in India' by Soumyadeep Bhaumik (2014) in *Journal of Family Medicine and Primary Care* proposes an innovative approach to strengthening primary healthcare.
- 'Strengthening of Primary Health Care: Key to Deliver Inclusive Health Care' by Rajiv Yeravdekar et al. (2014) in *Indian Journal of Public Health* examines healthcare to address poverty and inequality, advocating for primary health care strengthening.
- 'Urban Health in India: Many Challenges, Few Solutions' by Krishna D Rao et al. (2015) in *The Lancet Global Health* explores India's urban health challenges, urging policy focus and equitable resource allocation.

- 'Utilization of the Services of the Primary Health Centres in India - An Empirical Study' by Khursheed Hussain Dar (2015) in *Journal of Health, Medicine and Nursing* traces the shift from private to public healthcare in rural areas due to economic constraints.
- 'Health System in India' by M.Chokshi et al. (2016) in *Journal of Perinatology* reflects on India's evolving health system, advocating for effective resource allocation and better utilization.
- 'A Study of Effective Utilization of Healthcare Services provided by Primary Health Centres and Sub-centres in rural Tamil Nadu' by Rajan Rushender et al. (2016) in *International Journal of Community Medicine and Public Health* explores healthcare utilization patterns, revealing shortcomings in certain areas.
- 'How to Strengthen Primary Health Care' by P.Kumar (2016) in *Journal of Family Medicine and Primary Care* expounds on the significance of well-resourced primary health care and proposes strategies for quality care.
- 'Healthcare Challenges in Rural India' by Deshpande Suniel et al. (2017) in *Indian Journal of Public Health Research and Development* highlights challenges in rural healthcare infrastructure, leading to dependence on distant facilities.
- 'Are Our Sub-Centres Equipped Enough to Provide Primary Health Care to the Community: A Study to Explore the Gaps in Workforce and Infrastructure in the Sub-Centres from North India' by Bashar and Goel (2017) in *Journal of Family Medicine and Primary Care* exposes gaps in primary healthcare delivery.
- 'Sub-Centre Health Profiling and Healthcare Delivery Services in Rural Community in Northern India' by Sheikh Mohd Saleem et al. (2017) in *Annals of Tropical Medicine and Public Health* examines the accessibility and acceptability of healthcare services in a rural context.

- 'More, Better, Faster & Sustained: Strengthen Primary Health Care to Advance Universal Health Coverage' by Chandrakant Lahariya (2019) in *Indian Journal of Medical Research* advocates for stronger primary healthcare to achieve Universal Health Coverage.

The above-mentioned-address various facets of healthcare in India, highlighting challenges, disparities, and the importance of strengthening primary healthcare systems. Despite the extensive literature on primary health care, no study exists on the operations of Sub Health Centres in Mizoram. This study aims to fill this gap, contributing to the body of knowledge on health administration in Mizoram, with a specific focus on primary healthcare.

STATEMENT OF THE PROBLEM

The healthcare landscape in India continues to grapple with persistent challenges related to communicable and chronic diseases, maternal health, and mental well-being. Administering effective healthcare at the primary level, particularly at health sub-centres, is complex due to factors like poverty, inequality, and cultural diversity. India's Primary Health Care (PHC) system faces funding issues, inadequate resources, and a shortage of trained personnel. Mizoram, a young Indian state, has made progress in establishing healthcare facilities, but disparities remain.

This study focuses on Mizoram's health sub-centres and their roles within the state's healthcare system. The lack of comprehensive research into these institutions prompts the need for an in-depth investigation. The study aims to assess sub-centre infrastructure, staffing, medical resources, community engagement, and service delivery. By examining these aspects, it seeks to provide insights that can inform policy decisions for improving primary healthcare services in Mizoram.

The study acknowledges challenges faced by health sub-centres, including geographical remoteness, resource limitations, and cultural factors. Identifying these obstacles is crucial for effective problem-solving. The research also proposes strategies to enhance sub-centre functioning, involving targeted resource allocation, professional capacity building, community engagement, and integration of traditional healing practices.

Conducting a systematic study of health sub-centres in Mizoram is vital to strengthen the state's primary healthcare foundation. The study's findings will contribute to a better understanding of sub-centre operations, enabling the formulation of informed policies and strategies that address challenges and create a more responsive and resilient healthcare system in Mizoram.

SCOPE OF THE STUDY

The scope of this study is to gain a comprehensive understanding of the operations of Sub health centres in Mizoram, with a specific focus on the Aizawl and Lunglei districts. The research traces the historical development, milestones, and evolution of these centres within the context of primary healthcare. By closely analyzing the challenges faced by healthcare providers, the study aims to propose effective solutions that can enhance the delivery of healthcare services.

The research delves into key indicators and characteristics of Sub Health Centres and Clinics, shedding light on their day-to-day functioning. Given the significance of these facilities in ensuring accessible healthcare, their operational efficiency is of utmost importance. The study identifies challenges that may impede their effectiveness and efficiency and provides recommendations to address these issues.

However, this study goes beyond the examination of individual healthcare facilities. It also encompasses a broader understanding of primary healthcare in Mizoram. By identifying challenges and proposing solutions, the study intends to contribute valuable insights that can inform the decision-making processes of policymakers, administrators, and healthcare professionals. Ultimately, the findings of this study aim to support evidence-based strategies that could lead to the establishment of a resilient and patient-centric healthcare system in Mizoram.

OBJECTIVES OF THE STUDY

The proposed study aims to focus mainly on the functioning of Health SubCentres in Mizoram. Consequently, the following are the research's explicit objectives:

1. to investigate the role and functioning of sub-health centres in Mizoram.

2. to study the different aspects of availability and standards of services of Health Sub Centres in Mizoram.
3. to study the different aspects of satisfaction of the people regarding the functioning of Health Sub Centres in Mizoram.
4. to identify the problems and challenges faced by Sub health centres and to recommend remedial measures for more efficient functioning Health Sub Centres in Mizoram.

RESEARCH QUESTIONS

In light of the objectives of the study, the research questions have been discerned for finding satisfactory answers:

1. What are the role and functioning of Health Sub Centres in the state of Mizoram?

2. What are the different aspects of availability and standards of services of Health Sub Centres in Mizoram?

3. What are the different aspects of satisfaction of the people regarding the functioning of Health Sub Centres in Mizoram?

4. What are the problems, challenges, and remedial measures for more efficient functioning Health Sub Centres in Mizoram?

METHODOLOGY:

The study is a cross-sectional and descriptive research design, employing a mixed-method approach to comprehensively understand health sub-centres in Mizoram. It combines qualitative and quantitative techniques, conducted through field research in Aizawl and Lunglei Districts, focusing on selected health sub-centers.

The rationale behind choosing these two districts is rooted in their ability to effectively depict the geographical divisions of Mizoram, specifically the northern and southern parts. Aizawl, the capital city and administrative centre of the state, is situated in the northern area and serves as the primary urban hub. It has been selected as the representative city for the northern half of the state. In contrast, Lunglei District, chosen as the administrative centre for the southern region and the second most

populous metropolitan area after Aizawl, is deemed representative of "South Mizoram." This district, being the largest in terms of geographical expanse, also houses the High-Powered Committee. This approach provides a comprehensive understanding of health sub-centres in Mizoram, offering insights from various perspectives. The research also examines the difficulties encountered by providers of healthcare in these regions and investigates possible strategies to successfully tackle these problems.

The study selected 38 health sub-Centres in Aizawl and Lunglei using convenience and purposive non-probability sampling method. This strategy works well for this study since all sub-Centres follow the same Indian Public Health Standards, ensuring operations and services are uniform. Both primary and secondary data sources are utilized. Primary data is collected through questionnaires and interviews with beneficiaries, healthcare professionals, and officials. Secondary data includes published materials, official documents, and web resources.

The survey was conducted with a sample size of 200 beneficiaries, including 116 beneficiaries from Aizawl and 84 from Lunglei and 104 healthcare professionals, Health and Wellness Officers, and other Officials, 55 from Aizawl and 49 from Lunglei. The relevant paragraphs in the chapters gave qualitative data on health authorities' viewpoints.

Two sets of semi-structured questionnaires,combining both open ended and close ended questions tailored for beneficiaries and officials, following the same format were administered. Part 1 focuses on sub-centre aspects, while Part 2 gathers socio-demographic data. This design ensures consistency and comprehensiveness in data collection. On-site field study in Aizawl and Lunglei districts involves questionnaires, interviews, and interactions with stakeholders. This mixed-method approach captures both quantitative and qualitative insights, enriching the data collection process.

A Beneficiary Satisfaction survey was carried out to assess patient satisfaction with Sub Center operations and services.To measure patient satisfaction with the operational efficiency and services of Sub Centers, a customized metric called the Beneficiaries' Satisfaction Index (BSI) was employed. This index is derived from

six questions, with respondents rating their satisfaction on a 0 to 100 scale, where 0 represents the lowest satisfaction and 100 the highest. The BSI is calculated as follows:

BSI = {[(Average score of six questions/6) - 1] / 5} * 100

Additionally, the Relative Importance Index (RII) was also utilised to determine the significance of various factors in influencing overall patient satisfaction. The RII formula is as follows:

RII = $\sum$ (W / (A * N))

In this formula, W represents the weight assigned by each respondent (ranging from 1 to 5), A is a constant set at 5, serving as the highest possible weight, and N represents the total number of respondents. This approach allows us to assess the relative importance of factors affecting patient satisfaction in a standardized manner.

The collected data were analysed utilizing simple statistical tools, including calculating percentages, averages, and descriptive statistics, using software such as MS Excel and SPSS. Through data analysis, it was possible to identify common patterns, trends, and challenges across the health sub-centres. These quantitative findings were complemented by the qualitative data obtained from interviews, allowing for a deeper exploration of the reasons behind the observed trends.

CHAPTERIZATION

The present study has seven chapters:

Chapter I: Introduction

Chapter II: Health Administration: A Conceptual Study

Chapter III: Health Administration in India - A Historical Perspective

Chapter IV: Mizoram - A Profile

Chapter V: Working of Health Sub Centres in Mizoram - Issues and Challenges

Chapter VI: Results and Discussion

Chapter VII: Conclusion

MAJOR FINDINGS

Emphasis on Reproductive and Child Health (RCH): Health Sub Centres in Mizoram prioritize Reproductive and Child Health (RCH) services, especially for women of reproductive age, expectant mothers, newborns, and young children. This focus reflects their commitment to maternal well-being and better healthcare access for both mothers and children, contributing to improved health outcomes.

Comprehensive Healthcare Spectrum: Health Sub Centres offer diverse healthcare services, including preventive, promotive, and basic curative care. They also facilitate referrals for specialized care when necessary. Services encompass reproductive and child health, routine immunizations, school-based health initiatives, outreach programmes, house-to-house surveys, and meticulous record-keeping. This multifaceted approach ensures a thorough evaluation of health conditions in their designated areas, including accurate birth and death records.

Varying Infrastructure and Caseload Dynamics: In Mizoram, Sub-Centres are categorized differently from the national standard. Some rural Sub-Centres are equipped for intranatal services, while others have fewer resources, primarily for emergency deliveries. Most beneficiaries prefer institutional deliveries in well-equipped public and private hospitals, emphasizing the need for strategic healthcare distribution.

Sub Centre Clinics: Mizoram features Sub Centre Clinics, a unique practice not recognized by the central government. These clinics operate independently under their parent Sub Centres and are exclusive to Mizoram. While having numerous healthcare units is positive for accessibility, the mere proliferation of health centres doesn't guarantee high-quality healthcare.

Transformation under AB-HWCs Programme: The transformation of numerous Health Sub Centres into Health and Wellness Centres under the Ayushman Bharat-Health and Wellness Centres (AB-HWCs) Programme is a significant stride. These evolved centres now offer a comprehensive range of primary healthcare services. This expanded scope encompasses disease screening, prevention,

management of non-communicable diseases, communicable disease control, maternal and child healthcare, family planning, mental health support, and more.

Infrastructure and Building Conditions: Most Sub Centres (32 out of 38) operate from government-designated buildings, complying with healthcare infrastructure standards. Patient satisfaction with the existing buildings is low, with only 37 percent content and 63 percent considering them poor. Common issues include cramped spaces, limited privacy, and inadequate waiting areas. Urgent improvements are needed to create better healthcare environments, enhancing patient experiences and service delivery.

Service Availability: Antenatal care services demonstrate robust compliance, with full registration of expectant mothers, and adherence to key checks like blood pressure monitoring and abdominal examinations. However, the availability of delivery disposable kits is critically low, demanding immediate attention for safe deliveries at Sub Centres. Routine immunization strictly adheres to the government's schedule, and access to essential supplements is high, with 92 percent of respondents reporting availability. Treatment services for common ailments like diarrhoea and mild illnesses vary in availability, while specific disease treatments for malaria are well-covered, but tuberculosis and leprosy treatments require improvement. Wound treatment and dressing facilities show potential for enhancement, and non-communicable disease screening services are readily available, reflecting commendable efforts in addressing this health concern.

Staffing improvements in upgraded Health and Wellness Centres (HWCs) are evident with the presence of Health and Wellness Officers/M.O (AYUSH). However, gaps in staffing, particularly for ANMs and MPWs, persist in some sub-centres. Closing these staffing gaps is crucial to ensure that every Sub Centre or Clinic has the necessary health personnel, including ANMs, MPWs, and health attendants, for efficient delivery of primary healthcare services.

Covid Services :The research findings reveal key insights into COVID-19 services provided by Sub Centres. Of the respondents, 64 percent noted the availability of Rapid Antigen Tests (RAT) at the Sub Centre, with 51 percent reporting that RATs

were administered directly at the Sub Centre. Approximately 29 percent mentioned receiving the test without charge, while 33.5 percent incurred a cost. In terms of vaccination, 98 percent stated that vaccines were administered at the Sub Centre, and 91 percent indicated that health officials from their Sub Centre conducted vaccination in public places, with 14.5 percent reporting vaccination fees. However, 86 percent revealed that treatment for mild COVID-19 cases was not conducted at the Sub Centre, although 61.5 percent acknowledged the referral of COVID-19 patients by health officials. These findings provide valuable insights into the availability, administration, costs, and treatment-related activities within Sub Centres concerning COVID-19 services.

Patient Satisfaction Assessment: A survey involving 200 respondents gauged their satisfaction with Sub Centres' services, using a Beneficiaries' Satisfaction Index (BSI) with six key aspects:

i. Staff Attitude: 60.5 percent were "Very Satisfied," and 28.5 percent were "Somewhat Satisfied."
ii. Technical Competency: 48.5 percent were "Very Satisfied," and 43 percent were "Somewhat Satisfied."
iii. Medicine Availability and Quality: 77.5 percent were satisfied, 3.5 percent "Somewhat Dissatisfied," and 4 percent "Very Dissatisfied."
iv. Cleanliness Standards: 30 percent were "Very Satisfied," and 54.5 percent were "Somewhat Satisfied."
v. Equipment Availability and Standards: Responses varied.
vi. Building Quality: Satisfaction levels varied.

Overall Beneficiaries Satisfaction Index (BSI): Scored 6.16, reflecting a generally positive sentiment among patients.

Relative Importance Index (RII) Analysis: Factors influencing patient satisfaction were ranked as follows:
i. Staff Attitude (Rank 1): Highest RII of 0.88.
ii. Technical Competencies (Rank 2): RII of 0.86.
iii. Medicine Availability and Quality (Rank 3): RII of 0.82.

iv. Cleanliness (Rank 4): RII of 0.81.

v. Equipment Availability and Standards (Rank 5): RII of 0.76.

vi. Building Quality (Rank 6): Lowest RII of 0.74.

These findings emphasize the importance of staff attitude, technical proficiency, medicine availability, cleanliness, equipment quality, and building conditions in enhancing patient experiences and healthcare service delivery.

Identified challenges and issues faced by sub-centres (SCs) in Mizoram:

i. Poor Location: Many HSCs and Health and Wellness Centres are situated in inconvenient and remote areas. This creates difficulties in accessing these facilities, especially during adverse weather conditions. Lack of proper compounds and parking areas further complicates the situation, leading to delays and inconvenience for patients seeking medical care.

ii. Inadequate Infrastructure: The limited space within SC buildings presents a significant challenge. This becomes especially problematic during events such as routine vaccinations when accommodating patients becomes a challenge due to the lack of seating. Sub Centre Clinics, primarily located in NGO or private buildings, face operational challenges due to these space constraints.

iii. Insufficient Support Services: Access to basic necessities like clean water and reliable electricity is crucial for the smooth functioning of SCs. Many facilities lack dedicated connections and rely on shared resources, impacting their operations. The absence of delivery equipment and beds affects maternal and newborn care. Lack of essential facilities like refrigerators and proper storage also hinder efficient service delivery.

iv. Inadequate Medicines and Supplies: Shortages of essential medicines and medical supplies pose a significant obstacle for SCs. This scarcity impacts the timely and effective delivery of healthcare services, potentially leading to the spread of diseases within the community.

v. Telemedicine Challenges: The introduction of teleconsultation services has potential benefits and holds promise, but poor internet connectivity in remote

areas hampers its practical implementation. The lack of stable internet access disrupts real-time communication between healthcare providers and patients, making effective teleconsultations challenging.

vi. ASHA Issues: Accredited Social Health Activists (ASHAs) play a pivotal role but face challenges with inadequate compensation and excessive workloads. ASHAs often work full-time but receive insufficient pay. Variations in their qualifications impact their ability to effectively perform their roles.

vii. Emergency First Aid Materials: The availability of emergency first aid materials for treating injuries is often inadequate. Limited supplies and inconsistencies in wound care services can lead to delays in providing critical care, potentially exacerbating injuries or illnesses.

viii. Lack of Sterilizing Instruments and Storage Facilities: Many SCs lack necessary sterilizing instruments and proper storage facilities. The absence of refrigeration equipment impacts the storage of vaccines, medications, and medical supplies, affecting overall healthcare quality.

ix. Challenges Relating to ASHAs: ASHAs play a vital role but face challenges with compensation and workload. They often work full-time but receive insufficient pay. Variations in their qualifications impact their ability to effectively fulfil their responsibilities.

These challenges collectively emphasize the complexities that HSCs encounter in delivering healthcare services effectively in Mizoram. Addressing these issues is crucial for enhancing the accessibility and quality of healthcare for the communities they serve.

REMEDIAL MEASURES

1. Mobile Health Clinics: Mobile clinics staffed by healthcare professionals can overcome geographical constraints and limited space in Sub Centres/Health and Wellness Centres in Mizoram. Equipped with basic medical facilities, these mobile units bring healthcare services directly to remote and hard-to-reach areas, addressing the issue of inconvenient location and limited space. They could be particularly

effective during vaccination drives and annual screenings for Non-Communicable Diseases (NCDs), ensuring crucial healthcare programmes reach even the remotest corners.

2. Optimal Infrastructure: Enhancing the functionality of health sub-centres/clinics involves providing dedicated government-owned buildings in accessible locations. This proactive approach eliminates reliance on external entities and underscores the government's commitment to suitable infrastructure for primary healthcare delivery. Purpose-built structures for sub-centres offer heightened credibility, easy accessibility, and a secure environment for healthcare services, instilling confidence among the community members.

3. Adequate Staffing: Recognizing the importance of adequate staffing for effective healthcare services, a well-balanced allocation of human resources across sub-centres and clinics is crucial. While the presence of Health and Wellness Officers and M.O (AYUSH) in upgraded Health and Wellness Centres is promising, addressing staffing gaps, such as the absence of Auxiliary Nurse Midwives (ANMs) and Multipurpose Workers (MPWs), is vital. A well-rounded healthcare team, including ANMs, MPWs, and health attendants in every sub-centre or clinic, is essential for comprehensive healthcare delivery, ensuring healthcare providers can meet diverse healthcare needs.

4. Water and Electricity: To tackle challenges related to limited access to clean water and erratic electricity supply in sub-centres, prioritize dedicated connections. Collaboration with utility providers and local authorities is essential to secure a consistent supply of water and electricity. Exploring alternative energy solutions like solar panels or backup generators can further ensure uninterrupted power supply, pivotal for seamless functionality and uninterrupted healthcare services.

5. Maternal and Newborn Care: Allocate resources for essential equipment such as delivery beds, delivery kits, and emergency supplies in sub-centres to enhance maternal and newborn care. Collaboration with higher-level healthcare facilities can boost the capacity of sub-centres to provide comprehensive care during childbirth and manage unforeseen emergencies, directly impacting the quality of maternal and

newborn healthcare services, and ensuring the safety and well-being of expectant mothers and infants.

6. Equipment Maintenance: Ensuring the optimal functionality of medical equipment within sub-centres is contingent upon a systematic maintenance approach. Establish a framework for routine inspections, preventive maintenance measures, and swift repairs when needed. This framework guarantees that healthcare providers have access to fully functional equipment, promoting accurate diagnosis, patient monitoring, and treatment. This approach directly contributes to the efficiency and effectiveness of healthcare service delivery within sub-centres.

7. Sterilization and Storage: Addressing challenges related to sterilization instruments and storage facilities necessitates the prioritization of necessary equipment provision. Ensure access to sterilization tools like autoclaves adhering to infection control standards. Additionally, provide refrigeration facilities for vaccine storage and proper furniture for organizing medical supplies. These combined efforts enhance the quality and safety of healthcare services within sub-centres, promoting efficient healthcare provision.

8. Resource Provisioning: To address resource and medicine shortages, adopt a comprehensive approach. Acknowledge sub-centres as primary healthcare providers and ensure consistent resource allocation. Streamline supply chain management, optimize procurement processes, monitor stock levels, and establish reliable distribution channels. Collaborate with pharmaceutical companies to secure a steady supply of essential medicines, especially for priority diseases. Empower healthcare professionals with capacity-building programmes to manage and maintain essential inventories effectively, ensuring that sub-centres are well-equipped to provide quality healthcare services to their communities.

9. Emergency First Aid: Enhancing emergency first aid services and wound care necessitates a comprehensive strategy. Sub-centres may have well-stocked first aid kits for prompt emergency care, accompanied by training for healthcare professionals in wound care management. Quality assurance mechanisms and standardized protocols may monitor adherence to guidelines, ensuring consistent care quality. By

combining these approaches, the government can enhance emergency first aid availability and wound care consistency within sub-centres.

11. Proximity Staff Quarters: Recognize the absence of staff quarters in several Sub Centres and establish staff quarters near each Sub Centre. This proximity ensures that medical professionals can provide timely guidance and consultation, particularly in urgent medical situations. By having medical staff readily available, timely healthcare services are facilitated. This initiative not only assures community members of medical expertise in critical times but also reinforces the healthcare system's efficiency and responsiveness.

12. ASHAs' Income and Recognition: Address the issue of inadequate income for ASHAs by reevaluating their compensation to reflect their full-time commitment. Adequate remuneration recognizes ASHAs' vital contributions, ensuring their financial well-being. Recognize ASHAs as "health workers" under the National Health Mission, imparting dignity and boosting morale and effectiveness. Provide ongoing training in various aspects, such as data management, counseling, and digital tools, to equip ASHAs to effectively address health challenges in their communities. Continuous training enhances their capabilities, job satisfaction, and overall performance.

13. Digital Record-Keeping: Modernize healthcare records by transitioning from paper-based to computer-based record-keeping.. Ensure personnel are equipped with necessary skills for data management. Overcome technological obstacles, address data ownership, privacy, and ethical considerations, and foster user acceptance for the successful implementation of computer-based record-keeping. This transition enhances efficiency, accessibility, and accuracy of healthcare records, benefiting both healthcare providers and patients.

LIMITATIONS OF THE CURRENT STUDY

The current study has a number of limitations, while being the first of its type in the context of the study of the operation of Sub health centres in Mizoram. Among them are the following:

-It is an academic research work with a deadline that must adhere to the guidelines for finishing the study.

-If there is enough time, money, and space, it may be possible to expand the study's geographic scope, the number of Sub health centres included in it, and the sample respondents in order to gain a deeper knowledge of the problems and obstacles.

-Starting with one state in the northeastern area, namely Mizoram, a few additional states in the region can be taken up for comparative analysis in order to arrive at broad, regional outputs and results in healthcare management.

In the PAN-Indian context, a few more states can be included to investigate the healthcare situation in India, which will be useful for feedback and improvements in Indian healthcare administration at the local level.

SIGNIFICANCE OF THE STUDY

The significance of this study is multifaceted and holds significant importance in the domain of healthcare administration, social welfare administration, and public administration at large. Firstly, the theoretical findings sheds light on the historical perspectives of health administration in India, drawing from ancient texts like the Vedas, Ayurveda, Buddhism, and Unani systems of medicine. These texts emphasize healthy lifestyles, proper diets, fasting, moderation, and a healthy mind and body. The concept of prevention over cure, derived from ancient wisdom, remains relevant today, offering timeless guidance for healthier lives.

Additionally, the field study reveals the unique practice of establishing Health Clinics under parent Sub Centres in Mizoram, enhancing healthcare accessibility. However, the study also highlights that increasing healthcare units may be accompanied by qualitative improvements in equipment and facilities. Also, the satisfaction survey, using the Beneficiaries' Satisfaction Index (BSI), indicates positive feedback on staff attitude, technical competencies, and cleanliness standards. Concerns arise regarding medicine availability and equipment quality, highlighting areas for improvement. The Relative Importance Index (RII) analysis reaffirms the

significance of staff attitude, technical competencies, medicine availability, cleanliness, equipment quality, and building conditions in shaping patient satisfaction.

Moreover, this study goes beyond mere observation by synthesizing stakeholder feedback into actionable recommendations. These suggestions serve as a comprehensive blueprint for addressing current healthcare challenges, fostering an environment conducive to continuous improvement, and ultimately elevating the efficiency and quality of healthcare services. In doing so, it bridges the gap between academic inquiry and practical implementation, offering tangible benefits to healthcare systems and the communities they serve.

BIBLIOGRAPHY

BOOKS

Ahmad, Alia. et al.(eds.) (2013), *An Institutional Perspective on Provision of Primary Health Care in India and Bangladesh*, New Delhi: Academic Foundation.

Arathi, P.M. (2022), *Public Health in India: Policy Shifts and Trends,* New Delhi Sage Publications.

Bali, Arun. P (ed.) (2001), *Refashioning the New Economic Order*, New Delhi: Rawat Publications.

Barpujari, H.K (1996), Assam in the Days of the Company, North Eastern Hill University Publications, Shillong.

Basham, A.L. (1976), *The practice of Medicine in Ancient and Medieval India*, in Charles Leslie (ed.), Asian Medical Systems: A Comparative Study, University of California Press, Berkeley, Los Angeles, London.

Chakravarthy, K. Kalyan et.al. (2017), *Primary Healthcare Management in India*, New Delhi, Mittal Publications.

Gupta, Sumedha (2009), *A Textbook of Healthcare Management*, New Delhi: Kalyani Publishers.

Hardy A, Conrad L. (2001), *Women and Modern Medicine*, Amsterdam: Editions Rodopi B.V.

Hiramani, A.B. (2016), *Health Education in Primary Health Care*, New Delhi: B.R. Publishing Corporation.

Hluna, J.V. (2016) 'Mizoram Welsh Missionary-te Chanchin' (Revised and Enlarged), The Synod Press, Aizawl, Mizoram.

Kalyan, Chakravarthy. et al., (2017), *Primary Healthcare Management in India*, Mittal Publications, New Delhi.

Kishore, J. (2022), *National Health Programmes of India*, New Delhi, Century Publications.

Kumar A. (1998), *Medicine and the Raj: British Medical Policy in India,* New Delhi, Sage Publications.

Pachuau, Rintluanga (2013), *Mizoram A study in Comprehensive Geography*, Northern Book Centre, New Delhi,

ARTICLES

Agarwal, Arun K (2008), 'Strengthening Health Care System in India: Is Privatization the Only Answer', *Indian Journal of Community Medicine*, 33(2).

Chokshi, M. et al,(2016), 'Health Systems in India', *Journal of Perinatology*,36 (Suppl 3).

Chokshi, M., Farooqui, H., Selvaraj, S., et al., 'A Cross-Sectional Survey of the Models in Bihar and Tamil Nadu, India for Pooled Procurement of Medicines', *WHO South-East Asia Journal of Public Health*, Jan.–June 2015 4(1).

Costa, Lourdes Bravo Da (1987) "Medical conditions in Goa of 16th and 17th Centuries: A study of foreign travelogues" in *Bull. Ind. lnsr , Hist, Med*. Vol. XVII.

Dar, Khursheed Hussain (2015), "Utilization of the services of the Primary Health Centres in India-An Empirical Study", *Journal of Health, Medicine, and Nursing*, Vol. 16.

Deka, Mina Kumari (2012), *Religion of the Mizos before their Conversion to Christianity*, IJCAES Special Issue on Basic, Applied & Social Sciences, Volume II, October 2012.

Harvey, Conrad (2006), 'A Buddhist Perspective on Health and Spirituality' in *Scottish Journal of Healthcare Chaplaincy*, Vol. 9. No. 1.

Jawahar, S. K. (2006/2007), "Healthcare Scenario in India" in *ICU Management and Practise*, ICU Volume 6-Issue 4.

Kalra, Sanjay et al. (2018), "Lessons for the Healthcare Practitioner from Buddhism" in *Indian J Endocrinol Metab.* 2018 Nov-Dec; 22(6).

Mukherjee, Reema et al (2018), "India's national health protection scheme: A preview". *Medical Journal of Dr. D.Y. Patil Vidyapeeth*. 11 (5): 385.

Mukhopadhyay, Amiya Kumar (2013) "Skin in health and diseases in Rigveda Samhita: An Overview." *Indian Journal of Dermatology* Vol. 58, Issue No.6.

Narayana, A. (1995), "Medical Science in Ancient Indian Culture with special reference to Atharva Veda" in Bulletin of the *Indian Institute* of *History* of Medicine, Vol. XXV

Pandve, H.T. et al, (2013), 'Primary Health Care in India: Evolution and Challenges', *International Journal of Health System and Disaster Management*, Vol-1, Issue-3.

Qadeer, Imrana (1995),' Primary Healthcare: A Paradise Lost', *IASSI Quarterly*, Vol.14, Nos 1&2.

OFFICIAL RECORDS

Alma Ata Declaration,1978

ASSAM ACT XXI of 1954,The Assam Lushai Hills District (Acquisition of Chiefs' Rights) Act,1954 published in the Assam Gazette, dated the 27th July 1955

Economic Survey of Mizoram 2021-2022, Govt. of Mizoram

Govt. of India(1981), Report of the Working Group on Health for All by 2000 A.D, Ministry of Health and Family Welfare.

Health Promotion: A discussion document on the concept and principles of health promotion, Copenhagen, 9-13th July, WHO, 1984.

Healthy States Progressive India - Report on the Ranks of States and Union Territories, June 2019, by Niti Ayog.

Health Policy of Mizoram State,2022, Health and Family Welfare Department, Government of Mizoram

Indian Public Health Standards (IPHS), Guidelines for Sub-Centres, Revised 2012, Directorate of Health Services, Ministry of Health and Family Welfare, Government of India.

Key Indicators of Social Consumption in India on Health, National Sample Survey 71st Round,2014, Ministry of Statistics and Programme Implementation, GOI

Mizoram Health Systems Strengthening Project Environmental and Social Management Framework Executive Summary,Nov 2020

National Health Policy Draft, 2015 available on https: //www.nhp.gov.in/sites/default/files/pdf/draft_national_health_policy_2015.pdf viewed on 02.09.2018

Press Information Bureau, Government of India, Posted On: 13 JAN 2022 2:51PM ,Release ID: 1789635) Visitor Counter : 180722.

Profile of Cancer and Related Health Indicators in the North East Region of India-Mizoram,ICMR-National Centre for Disease Informatics and Research.

Special Bulletin on Maternal Mortality in India 2016-2018

Sustainable Development Goals-Mizoram Vision 2030, Planning and Programme Implementation Department, Government of Mizoram.

Three-year report of population-based cancer registry 2012-14, Indian Council of Medical Research.

The Mizoram Gazette Extraordinary No.B.19011/6/2019-HFW, the 20th October 2021.

INTERNET SOURCES

Censusindia.gov.in/2011census/dchb/DCHB_A/.../1503_PART_A_DCHB_AIZAWL.pdf viewed on 19.10.2018.

Department of Pharmaceuticals, Jan Aushadhi: A Campaign to Ensure Access to Medicines for All; viewed on 03.09.2018

http://www.un.org/en/universal-declaration-human-rights/index.html viewed on 01.09.2018

Primary health care and the Millennium Development Goals: issues for discussion Pertti Kekki, MD, ScD; Professor of General Practice and Primary Health Care; University of

Helsinki, Finland (pertti.kekki@helsinki.fi) available at https://pdfs.semanticscholar.org/d4e0/52b93043cd8a36607c4b93f08805329df509.pdf viewed on 20.10.2018

www.medicine.uottawa.ca/sim/data/Health_Definitions_e.htm viewed on 01.09.2018