

***“Innovative Health Services in Latur: Examining the  
role of primary health care centers”***

**A Dissertation submitted to the Panjab University, Chandigarh for the award  
of Executive Master’s in Public Administration and Public Policy Degree  
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Advanced Professional Programme in Public Administration (APPPA)**

Submitted by

**Air Cmde Ravinandan Ganpat Nakil, VSM, (IAF)**

**Roll No. 4914**

**Under the guidance and supervision of**

**Prof (Dr) Neetu Jain**



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**Indian Institute of Public Administration**

**New Delhi**

## CERTIFICATE

I have the pleasure to certify that **Air Cmde Ravinandan Ganpat Nakil, VSM, IAF** has pursued his research work and prepared the present dissertation titled **“Innovative Health Services in Latur: Examining the Role of Primary Health Care Centres”** under my guidance and supervision. The same is the result of research done by him to the best of my knowledge, no part of the same has been part of any monograph, dissertation or book earlier. This is being submitted to the Panjab University, Chandigarh, for the purpose of **Executive Master’s in Public Administration and Public Policy (EMPA&PP)** in partial fulfilment of the requirement for the Advanced Professional Programme in Public Administration of Indian Institute of Public Administration (IIPA), New Delhi.

I recommend that the dissertation of Air Cmde Ravinandan Ganpat Nakil is worthy of consideration for the award of Executive Masters in Public Administration and Public Policy (EMPA & PP) of the Panjab University, Chandigarh.

Date: March 2024

Place: New Delhi

(Dr Neetu Jain)

Professor

Indian Institute of Public Administration

New Delhi

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**(Air Cmde Ravinandan Ganpat Nakil,VSM)**

Place: New Delhi

Roll No. 4914

Indian Institute of Public Administration

New Delhi

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## List of Abbreviations

|    |            |   |
|----|------------|---|
| 1  | AB- HWC    | Ayushman Bharat- Health & Wellness Centre                   |
| 2  | ASHA       | Accredited Social Health Activist                           |
| 3  | AYUSH      | Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy |
| 4  | BPL        | Below Poverty Line  |
| 5  | CBR        | Crude Birth Rate  |
| 6  | CHC        | Community Health Centre                                     |
| 7  | CPHC       | Comprehensive Primary Health Care                           |
| 8  | CHO        | Community Health Officer                                    |
| 9  | COVID      | Corona Virus Disease  |
| 10 | CPHC       | Comprehensive Primary Health Care                           |
| 11 | DH         | District Hospital   |
| 12 | FRU        | First Referral Unit   |
| 13 | HFWTC      | Health and Family Welfare Training Centre                   |
| 14 | HA (F)/LHV | Health Assistant (Female)/Lady Health Visitor               |
| 15 | HDI        | Human Development Index                                     |
| 16 | HA (M)     | Health Assistant (Male)                                     |
| 17 | HFWTC      | Health And Family Welfare Training Centre                   |
| 18 | HWC        | Health and Wellness Centres                                 |
| 19 | HWC-SC     | Health & Wellness Centres-Sub Centres                       |
| 20 | HWC-PHC    | Health & Wellness Centres - Primary Health Centres          |
| 21 | HW (F)/ANM | Health Worker (Female) / ANM                                |
| 22 | HW (M)     | Health Worker (Male)  |
| 23 | IMR        | Infant Mortality Rate                                       |
| 24 | IPHS       | Indian Public Health Standards                              |

|    |        |   |
|----|--------|---|
| 25 | MCH    | Maternal and Child Health   |
| 26 | MMU    | Mobile Medical Unit   |
| 27 | MNP    | Minimum Needs Programme   |
| 28 | MAS    | Mahila Aarogya Samitis  |
| 29 | MO     | Medical Officer   |
| 30 | MOHFW  | Ministry of Health & Family Welfare (GOI)   |
| 31 | NRHM   | National Rural Health Mission   |
| 32 | NCD    | Non-Communicable diseases   |
| 33 | NPCDCS | National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke |
| 34 | NPCB   | National Programme for Control of Blindness   |
| 35 | NMHP   | National Mental Health Programme  |
| 36 | NOHP   | National Oral Health Programme  |
| 37 | NPPC   | National Programme for Palliative Care  |
| 38 | NPPMB  | National Programme for Prevention and Management of Burn Injuries                                     |
| 39 | OPD    | Out Patient Department  |
| 40 | PNC    | Post Natal Car  |
| 41 | SDG    | Sustainable Development Goal  |
| 42 | UHC    | Universal Health Coverage   |
| 43 | WHO    | World Health Organization   |

## Executive Summary

Health serves as a vital gauge of development, and a key objective of the 2030 Agenda for Sustainable Development is to guarantee favorable health and well-being. The endorsement of a fresh declaration during the Global Conference on Primary Health Care in Astana, Kazakhstan, in October 2018 emphasized the pivotal importance of primary health care on a global scale. India's dedication to attaining Universal Health Coverage hinges significantly on the strengthening of primary health care.

India has entered a new era of public health in recent years. The COVID-19 epidemic highlighted the urgency of bolstering the public health system even further. Stakeholders have been working on methods to improve healthcare accessibility and availability, but additional high-impact interventions are still needed in this area. The COVID-19 epidemic has revealed both the strengths and flaws of India's social, economical, and health institutions. It is time to reflect, learn, and vow to construct stronger, more resilient health-care systems that ensure health security for all. Several clear lessons emerged from around the world. Countries with good public health and primary care saved more lives. Countries that involve and empower communities have showed resilience. Countries who have learned from prior health shocks and prepared their systems for the next one performed better. Countries where citizens trust their leaders and governments performed better, Countries that engage in R&D had a clear advantage in addressing the pandemic.

The initiation of Ayushman Bharat – Health and Wellness Centers in 2018 marked a clear demonstration of the government's resolve to provide universal healthcare to all individuals residing in both rural and urban areas. Over the past two years, substantial advancements have been achieved in each state across the nation.

The Maharashtra state has exhibited notable achievements in various key metrics compared to the national average. However, despite these positive strides, approximately a quarter of the overall disease burden stems from Communicable, Maternal, Newborn, and Nutrition-related ailments, with Non-Communicable Diseases (NCDs) accounting for a significant 63%. Maharashtra falls within the higher-middle epidemiologic transitional level category, as per the

India State-Level Disease Burden 2017 report. Urban areas host nearly half of the state's population, while around 11% comprises elderly individuals.

The dissertation aimed to study two innovative schemes i.e. Sanjeevani Abhiyan for cancer screening and Jeevan Rekha Kaksh for maternal mortality apart from normal government health schemes conducted by the District Health Department of Latur. The aim was to evaluate the motives behind the implementation of these initiatives, their efficacy, encountered problems, and to gather feedback from patients and healthcare personnel through engagement with various stakeholders. Data collection involved visits to District Health Offices, interviews with designated officers overseeing the schemes, and visits to Health and Wellness Centers and Subcenters to gather insights on innovative healthcare programs.

This comprehensive report highlights the successful implementation of innovative health schemes in Latur District, Maharashtra, focusing on initiatives such as the Sanjeevani Abhiyan for cancer screening and the Jeevan Rekha Kaksh scheme for maternal mortality reduction. Through rigorous planning, community engagement, and capacity building, Latur District has transformed its primary healthcare system, converting numerous facilities into fully functional Health and Wellness Centers (HWCs). Challenges such as timely manpower recruitment, quality improvement, infrastructure creation and medicine procurement were addressed through strategic approaches. Population expansion, poverty, unanticipated natural and manmade catastrophes, the worldwide AIDS or influenza (H1N1) pandemic, inadequate coverage in rural and isolated regions, and the ongoing threat of biological warfare are just a few of the issues that the government is now dealing with. In large part, lifestyle illnesses are on the rise. They are becoming more common as a result of the stress caused by industrialization and urbanization. The expanding population and limited opportunities exacerbate people's challenges in meeting their basic health needs. Recommendations include enhancing outreach programs, improving road infrastructure for better healthcare accessibility, and empowering local governance for medicine procurement. The success of these initiatives underscores the importance of proactive healthcare interventions and serves as a model for other districts to emulate. Moving forward involves improving readiness and response systems, establishing high-quality healthcare infrastructure, and increasing community involvement in health matters. These efforts will not only enhance public health but also aid in effectively managing future pandemics.

# CHAPTER 1

## INTRODUCTION

“Ayushman Bharat scheme is for the poor, the middle class and common families. We have adopted a holistic approach in our healthcare system. Today our focus is not only on health but equally on wellness.”

—Hon’ble Prime Minister Shri Narendra Modi

### 1.1 Background

Health is a fundamental human right and a global social goal. It is pertinent for the realization of basic human needs and for a better quality of life. Primary Health Centers (PHCs) are essential elements of healthcare systems globally, acting as the initial interface between individuals and the healthcare system. They play a pivotal role in ensuring equitable access to essential healthcare services for communities, especially in rural and underserved areas. The idea of Primary Health Centers (PHCs) has garnered worldwide acknowledgment as a crucial component of achieving universal health coverage, a target established by the World Health Organization (WHO) to guarantee accessible healthcare services for all without financial burdens. PHCs across the globe generally provide a spectrum of essential healthcare services encompassing preventive care, treatment for common illnesses, maternal and child health services, immunizations, and health education. The effectiveness of PHCs in delivering these services is paramount for enhancing the health and welfare of communities.. Health care involves medical, nursing, and allied health professionals providing services to prevent, treat, and manage sickness, as well as maintaining mental and physical well-being. Article 21 of the Constitution recognizes health as a fundamental human right. Though Article 21 states that state administrations must safeguard the health and nutritional well-being of the people, the central government also plays an active role in the sector. Recognizing the critical role played by the Health Industry, the industry has been conferred with the infrastructure status under section 10(23G) of the Income Act. The healthcare system in India is universal. The administration of healthcare primarily falls under the jurisdiction of individual states. State governments are

responsible for delivering healthcare services and health education, while the central government provides administrative and technical support. India's Constitution assigns each state with the responsibility of ensuring healthcare for its populace. The architects of the Constitution included the right to health within the Directive Principles of State Policy (DPSP), mandating states to furnish comprehensive, preventive, promotional, and rehabilitative healthcare services, along with adequate nutrition, to all citizens of India.

## **1.2 Statement of Problem**

Public health care schemes are intended to provide affordable and accessible health services to the population, especially the poor and vulnerable sections. However, there are many challenges and gaps in implementing and utilising these schemes, such as lack of awareness, inadequate infrastructure, insufficient human resources, low quality of care, and financial barriers. In Latur district, one of Maharashtra's drought-prone and backward districts, the public health care system faces several issues that affect the health outcomes and satisfaction of the beneficiaries. Therefore, there is a need to assess the innovative public healthcare schemes launched by District Health Department in the Latur district in terms of their coverage, effectiveness, efficiency, equity, and responsiveness, and to identify the factors that influence their performance and impact. The research aims to shed light on the strengths and shortcomings of the public healthcare system in Latur district. Therefore, this dissertation aims to investigate the contribution of primary health care centers (PHCs) in Latur as potential drivers for innovative health services, aiming to pinpoint successful approaches to enhance healthcare accessibility, affordability, and quality for the community.

## **1.3 Rationale of Study**

Under the Ayushman Bharat Scheme, various healthcare schemes were launched in 2018, however it appears that no specific study has been carried out on innovative healthcare schemes in Latur District and the role of PHC Centres in implementing these schemes. Also, in Latur, these innovative schemes were launched in 2021. Therefore, a study needs to be carried out to assess the effectiveness of the Sanjeevani Abhiyan Scheme and Jeevan Rekha Kakash

Scheme and how these schemes had an impact after implementation on the vulnerable population, did it improve health equity, what were the innovations and challenges faced by PHC Centres in implementation.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Public Health

The study will examine the previous studies and references published in research papers, journals, documents, and annual reports from the Ministry of Health and Family Welfare. It will focus on public health schemes, healthcare innovations, the role of Primary Health Care centers, health challenges encountered by PHC Centers, and rural healthcare. A study by Q.M. (2021) on Innovation in PHC in the 21st century highlighted that the COVID-19 pandemic underscored the critical necessity of revitalizing the healthcare system, emphasizing a robust foundation in Primary Health Care. The global population is encountering novel and emerging diseases, transitioning from communicable illnesses to non-communicable diseases (NCDs). Additionally, addressing maternal, newborn, child, adolescent, and reproductive healthcare continues to be an unresolved challenge.. Various innovations have been brought out in PHCs in countries like New Zealand, Belgium, Thailand, India and Bangladesh like the use of community-level family practitioners, online services, telephone services, coaching technology-enabled care models etc. According to the Ministry of Health & Family Welfare's annual report for 2021-2022, the States/Union Territories have a combined total of 77,786 operational Health & Wellness Centers as of September 16, 2021, out of a target of 110,000 by March 2022. The enhanced quality and coverage of healthcare, along with the adoption of technologically advanced care and the implementation of various health programs nationwide, have contributed to a significant decline in key demographic indicators. Over the past five decades, notable improvements have been observed: the crude birth rate has decreased. The infant mortality rate has dropped from 146 in 1951 to 30 in 2019, and the total fertility rate has declined from 6.0 in 1951 to 2.0 in 2019-20. The steepest decline in the decadal growth rate was noted between 2001 and 2011, from 21.54% to 17.64%. Moreover, there has been a decrease of 3.08% in the 0-6 population compared to 2001. Despite the addition of 18.14 crore population during 2001-2011, which was slightly less than the 18.23 crore added during 1991-2001, there has been a significant 4.1 percentage point decrease in the population growth rate, declining from 24.99% in 2001 to 20.92% in 2011 in the

Empowered Action Group (EAG) States of Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Rajasthan, Orissa, and Uttarakhand.

## **2.2 Global Overview of Community Health**

The leaders from across the world, along with international organizations and health authorities, gathered in Kazakhstan, to issue the Alma-Ata Declaration on Primary Health Care. This declaration remains a pivotal moment in global health history. It set a standard for public commitment to providing inclusive and high-quality healthcare accessible to all, both physically and financially. The Alma-Ata Declaration laid the groundwork for the World Health Organization's (WHO) Global Strategy for Health for All by the Year 2000 and Sustainable Development Goal (SDG) 3: "Ensure healthy lives and promote well-being for all at all ages" by 2030. Over the years, remarkable progress has been achieved in global health, resulting in an increase in life expectancy by around ten years since 1978 and a reduction of approximately two-thirds in the likelihood of dying before the age of five. The landscape of diseases has undergone significant changes over the past four decades due to demographic and epidemiological shifts.. While the unfinished business of preventing child and maternal death persists, chronic non-communicable diseases and injuries have surpassed acute infections as the leading causes of morbidity and mortality, prompting a shift in the profile of health care required. A number of factors and trends have transformed the world from 1978 to 2024, including changes in population distribution (more urban, older, but with a heavy burden of young people in some global regions), increasingly sophisticated health and non-health technologies, improved health literacy, engagement, and expectations, and growing food security and environmental risks that have a negative impact on health. Simply put, now is a good time to evaluate and update the Alma-Ata Declaration, as well as create a new vision of primary health care (PHC) as a basis for universal health coverage in the SDG era and beyond.

## **2.3 An Evolving World**

The world is experiencing significant shifts in economic, environmental, technological, and demographic realms, all of which exert an influence on health and well-being. While these changes aren't uniformly positive, they present notable challenges. Economic growth is intricately linked to advancements in health and well-being, serving both as a driving force and

an outcome. However, this progress has not been evenly distributed, with Sub-Saharan Africa lagging behind in recent decades. Many nations have witnessed a rise in within-country inequality alongside a series of economic shocks and crises at both the global and regional levels, all of which have severely impacted health and well-being. Additionally, numerous countries have faced persistent conflict and fragility, leading to significant health challenges for their populations. An estimated 68.5 million individuals have been forcibly displaced from their homes, marking the highest figure on record. Additionally, hundreds of millions more have relocated internally to urban areas, contributing to over 55% of the global population residing in cities, with implications for health and well-being that can vary widely. Climate change has been labeled as "the greatest global health threat of the 21st century," highlighting its profound impact on health and well-being. It has the capacity to significantly exacerbate the prevalence of extreme poverty. Primary Health Care (PHC) serves as a crucial mechanism for both society and healthcare institutions to tackle these issues. Through a multisectoral approach, PHC fosters collaboration among a wide range of stakeholders at both national and sub national levels to explore and formulate policies aimed at addressing the social, economic, and environmental determinants of health and well-being. Emphasizing the role of individuals and communities as primary agents in shaping their own health and well-being is essential for understanding and effectively responding to the complexities of evolving circumstances.

## **2.4 Challenges in Contemporary and Future Health**

Over the past four decades, there has been notable progress in enhancing health and well-being, marked by declines in maternal, neonatal, and child mortality rates, as well as fatalities from HIV/AIDS, malaria, tuberculosis, and vaccine-preventable diseases. Primary Health Care (PHC) has played a pivotal role in driving these advancements, supported by substantial evidence of its effectiveness. Research demonstrates that PHC effectively addresses major causes of illness and death, while also reducing overall healthcare expenditures and enhancing efficiency. This is achieved through improved access to preventive and promotive services, early diagnosis and treatment across a spectrum of conditions, and a people-centered approach to care that considers the holistic needs of individuals. Additionally, PHC helps in curbing avoidable hospital admissions and readmissions. The Millennium Development Goals, which targeted communicable, maternal, neonatal, and pediatric diseases, as well as malnutrition, have not been

fully achieved in numerous countries. However, there has been a significant global shift in disease patterns due to factors such as population aging and unhealthy environments fostering unhealthy lifestyles. These lifestyles include poor dietary habits, insufficient physical activity, and the use of tobacco, among others. The ageing population and bad habits, such as unhealthy eating, lack of physical activity, and tobacco use, have led to a significant shift in illness patterns. Between 1990 and 2016, the proportion of disability-adjusted life years lost to noncommunicable diseases (NCDs) increased from 44% to 61% globally.

Low- and middle-income nations experienced the highest increases. The coexistence of different (frequently inveterate) conditions in a single person (multimorbidity) presents a specific challenge, not as it were since of the noteworthy burden it forces on the person concerned but too since of the relative need to prove accessible to direct their complex administration.

The burden of illness related to mental well-being has also been developing in later decades and is progressively recognized as a major and generally untreated scourge. Addressing these increasingly complex health demands necessitates a multisectoral approach that incorporates health-promoting and disease-prevention policies, community-responsive solutions, and people-centred health services, or PHC.

Another significant concern is the emergence of new diseases and the rise of those resistant to existing treatment methods. The Ebola outbreaks in the past decade have underscored the risk posed by inadequate local healthcare systems. Additionally, the increasing prevalence of antibiotic resistance presents a substantial threat to current treatment options. Primary Health Care (PHC) encompasses essential components necessary to tackle these challenges and enhance health security. This includes community involvement and education, ensuring access to quality medicines, promoting rational prescription practices, and implementing a fundamental set of public health functions such as surveillance and prompt response. Moreover, through bolstering community and peripheral health facility levels, Primary Health Care (PHC) plays a crucial role in cultivating resilience, essential for enduring disruptions to the health system and ensuring the ongoing provision of essential health services. This serves as a fundamental cornerstone for

achieving the health-related Sustainable Development Goals (SDGs) and Universal Health Coverage (UHC).

The 2030 Agenda for Sustainable Development, accompanied by the 17 Sustainable Development Goals, presents an ambitious blueprint for global progress. Within this framework, SDG3 specifically targets health and well-being, calling for endeavors to ensure healthy lifestyles and promote well-being across all age groups. The objectives of SDG3 are intricately linked to health and well-being while also intersecting with and influencing other development goals. Attaining the targets set by SDG3, with a focus on inclusivity, necessitates the adoption of Primary Health Care (PHC). Multisectoral policies play a vital role in achieving objectives such as reducing maternal, neonatal, and child mortality, ensuring universal access to sexual and reproductive health services, enhancing drug misuse prevention and treatment, and preventing and treating Non-Communicable Diseases (NCDs). These efforts rely on integrated health services that prioritize primary care and public health functions, empowering individuals and communities. Even goals addressing epidemics and communicable diseases traditionally approached through vertical initiatives, now demand a more integrated strategy to sustain and expand progress. Issues such as poor-quality housing and neglected peri-domestic environments contribute to health risks, emphasizing the need for recognition and support from governmental and service delivery entities.

Understanding the impact of various governmental policies and actions on health services is crucial. Recognizing that multisectoral policies and actions are core components of PHC aligns with the integrated vision of the SDGs. Consequently, PHC initiatives have the potential to draw from and contribute to various sectors, facilitating progress across a spectrum of goals beyond SDG3. These include poverty alleviation, hunger eradication, education, gender equality, access to clean water and sanitation, economic growth, inequality reduction, and climate action.

## **2.5 Linking PHC, UHC and the SDGs**

Currently, one of the global community's primary goals is to achieve UHC, and PHC provides a critical basis for this effort. UHC has numerous features, including financial

protection (which reduces household health expenditures) and increased access to high-quality services, medicines, and vaccinations. Reaching everyone, even the most disadvantaged, is a critical component of UHC.

PHC is crucial to addressing all aspects of UHC. Primary health care (PHC) addresses health determinants and prioritizes population-level services to prevent sickness and improve well-being, minimizing household health costs. This decreases the need for personalized care while also preventing health issues from becoming more complex and costly. Empowered individuals and communities are key advocates for increasing financial protection for health services. PHC is a cost-effective method of providing services, hence focusing on it is the greatest value strategy for governments to achieve universal access. The inclusion of empowered individuals and communities as co-developers of services promotes cultural sensitivity and patient satisfaction, ultimately enhancing use and health outcomes. Furthermore, there is substantial evidence that health systems focused on primary care services that are first-contact, ongoing, comprehensive, coordinated, and people-centred, have better health outcomes.

In many nations, the majority of those who do not currently have access to care face disadvantages. PHC is best suited to address this since it focuses on addressing the health determinants that contribute to vulnerability. Furthermore, in most countries, the PHC's emphasis on community-based services is the only option to reach the rural and underprivileged populations. The SDGs commit the globe to an ambitious development agenda aiming at enhancing everyone's health and well-being. Forty years after the Declaration of Alma-Ata, armed with evidence and motivated by renewed global commitment, it is time for the international community to take decisive steps in that direction. A new approach to primary health care is critical for accomplishing the SDGs and UHC. Progress will require courage and determination, but the time is right. The world has never been better positioned for success.

## **2.6 Evolution of Healthcare in India: An Overview**

### **2.6.1 Before Independence**

Traditionally, health care in India has relied on volunteer work. Traditional healthcare practitioners have been meeting society's medicinal needs since ancient times. Knowledge of

therapeutic plants and herbs was passed down from generation to generation. Colonial authority and British domination altered the situation Hospitals operated by Christian missionaries became adopted Western practices and ideologies.

### **2.6.2 After Independence**

Prior to independence, India's healthcare system was in shambles, resulting in high mortality rates and infectious disease outbreaks. Following independence, the Indian government prioritized primary healthcare and has made ongoing efforts to improve the system nationwide. The government initiative proved insufficient to fulfill the demands of a growing population, whether in basic, secondary, or tertiary healthcare. Alternative financing sources were important to the healthcare sector's long-term viability.

### **2.6.3 Ancient Healing Practices in India**

In India, there coexists both modern and traditional forms of healthcare. Traditional healthcare systems such as Ayurveda, Siddha, Unani, Homeopathy, Naturopathy, and Yoga are widely practiced. Ayurveda, which translates to "science of life," focuses on holistic well-being, addressing causes, symptoms, diagnoses, and treatments across mental, physical, and spiritual dimensions. Traditionally, practitioners inherited their knowledge, but now, educational institutions offer training in indigenous medical practices. The Siddha system posits that disease arises from imbalance among the body's five elements, with diagnosis relying heavily on the physician's clinical expertise through observation, pulse examination, and medical history. Yoga, originating from ancient Indian texts known as the Vedas, encompasses physical, mental, moral, and spiritual dimensions of health. Yogis have shared their experiences, developing a method accessible to all for living in harmony with the universe. Naturopathy enjoyed popularity in ancient India, as evidenced by references in the Vedas and other historical sources. According to Naturopathy, all ailments stem from an accumulation of unhealthy substances within the body, and their removal facilitates healing or relief. It emphasizes the inherent self-regulating and self-healing capabilities of the human body. Unlike other medical systems, Naturopathy does not attribute disease to a single cause or advocate for a singular treatment approach. Instead, it considers a range of factors contributing to illness, including unnatural lifestyle habits, environmental influences, and disruptions to the body's natural functions.

The Unani system of medicine posits that the body comprises four primary elements: earth, air, water, and fire, each characterized by different temperaments such as cold, hot, wet, or dry. Through the interaction of these elements, new compounds with unique temperaments emerge, including hot-wet, hot-dry, cold-wet, and cold-dry. The body consists of simple and complex organs that receive nourishment from four humors: blood, phlegm, yellow bile, and black bile. Unani medicine emphasizes health promotion, disease prevention, and treatment. Additionally, in rural areas of India, faith or spiritual healers are prevalent, some of whom incorporate traditional remedies like Ayurveda, Yoga, or Naturopathy into their healing practices for clients.

#### **2.6.4 Contemporary (Allopathic) Medical Systems in India**

India's allopathic healthcare system includes public, private, and informal providers. The country's size and spread made it difficult to fully comply with standards and regulations. Although there are rules and guidelines, compliance is low. In actuality, the sector operates in a largely unregulated environment, with few restrictions on what services can be given, by whom, how, and at what cost. As a result, there are significant inequalities in access, cost, quantity, and quality of healthcare services across the country.

India was among the earliest nations to recognize the value of adopting a primary healthcare approach. The foundation of primary healthcare in India was established through the recommendations put forth by the Bhore Committee in 1946. Subsequently, with the initiation of health planning in India during the formulation of the First Five Year Plan (1951-1955), the Community Development Programme was introduced in 1952. This program, which encompassed health and sanitation initiatives, laid the groundwork for establishing primary health centers and sub-centers. Various committees such as the Mudaliar Committee (1962), Chadah Committee (1963), Mukherjee Committee (1965, 1966), Jungalwalla Committee (1967), and Shrivastav Committee (1975) also emphasized the importance of primary healthcare. In 1977, the government launched a Rural Health Scheme, with the core principle of empowering communities to take charge of their own health. India's healthcare system can be delineated into three distinct phases:

- (a) Ensuring healthcare access regardless of financial means. The state bore the responsibility of providing healthcare to its citizens. This phase resulted in modest achievements.
- (b) In the subsequent phase spanning from 1983 to 2000, the introduction of the first National Health Policy in 1983 marked a significant development. This policy emphasized the importance of fostering private sector participation in healthcare delivery and incentivized private investments in healthcare infrastructure through subsidies. Additionally, it aimed to improve access to primary healthcare services funded by the government, thereby facilitating the expansion of healthcare facilities in rural areas through National Health Programs (NHPs).
- (c) The current phase, post-2000, represents a further evolution and widening of focus. This phase prioritizes issues such as public-private partnerships, liberalization of the insurance sector, and the government's role as a financial supporter of healthcare initiatives.

## **2.7 National Health Mission (NHM)**

The Union Cabinet sanctioned the commencement of the National Urban Health Mission (NUHM) as a subsidiary component of the National Health Mission (NHM), alongside the National Rural Health Mission (NRHM). At the national level, the Mission Directing Group (MSG) and the Enabled Program Committee (EPC) have been built up. The MSG offers approach direction to the Mission, with the Union Minister of Health & Family Welfare serving as its chairperson. At the state level, the Mission works beneath the overarching administration of the State Health Mission (SHM) supervised by the State Minister. At the state level, the Mission works beneath the overarching administration of the State Health Mission (SHM) managed by the State Minister. The State Health Society (SHS) executes the functions under the Mission, with oversight from the Chief Minister. The District Health Mission (DHM)/City Health Mission (CHM) is led by the head of the local self-government, namely the Chairperson of the Zila Parishad or the Mayor, depending on whether the district is

predominantly rural or urban. Targets for both communicable and non-communicable diseases were established at the state level, taking into account local epidemiological trends and available financing for each condition. These targets include:

- (a) Decreasing Maternal Mortality Ratio (MMR) to 1 per 1000 live births.
- (b) Reducing Infant Mortality Rate (IMR) to 25 per 1000 live births.
- (c) Lowering Total Fertility Rate (TFR) to 2.1.
- (d) Preventing and reducing anemia among women aged 15–49 years.
- (e) Preventing and reducing mortality and morbidity from communicable, non-communicable, injuries, and emerging diseases.
- (f) Reducing household out-of-pocket expenditure on total healthcare costs.
- (g) Halving the annual incidence and mortality rates of Tuberculosis.
- (h) Decreasing the prevalence of Leprosy to less than 1 per 10,000 population and achieving zero incidence in all districts.
- (i) Ensuring that the annual incidence of Malaria is less than 1 per 1000.
- (j) Achieving less than 1 percent microfilaria prevalence in all districts.

## **2.8 National Urban Health Mission (NUHM)**

The National Urban Health Mission (NUHM) aims to enhance the health status of the urban population, particularly targeting the urban poor and vulnerable groups, by ensuring access to high-quality primary healthcare services. It progressively extends its coverage to encompass state capitals, district headquarters, and cities/towns with a population of 50,000 or more, as per the 2011 census data. NUHM prioritizes addressing the healthcare needs of the urban poor while reducing their out-of-pocket expenditures. This entails strengthening the existing healthcare delivery system, with a specific focus on residents of slum areas. Additionally, NUHM collaborates with schemes led by various ministries such as Urban Development, Housing & Urban Poverty Alleviation, Human Resource Development, and Women & Child Development, which target broader determinants of health such as access to clean water, sanitation facilities, education, and other related factors.

## **2.9 National Rural Health Mission (NRHM)**

The National Rural Health Mission (NRHM) is designed to ensure that rural populations, especially vulnerable groups, receive healthcare services that are fair, cost-effective, and of high quality. Special emphasis is placed on the Empowered Action Group (EAG) States, North Eastern States, Jammu and Kashmir, and Himachal Pradesh under the NRHM. The mission seeks to establish a decentralized health delivery system that is community-owned and involves collaboration across various sectors to address a wide range of health determinants, including water, sanitation, education, nutrition, and social and gender equality. By enhancing infrastructure, bolstering human resources, improving service delivery, and implementing decentralized programs at the district level, the mission aims to close rural healthcare gaps and optimize resource utilization through tailored, context-specific interventions. The NRHM was initiated to transition the country's public health approach from a vertical, disease-centric, and programmatic model to one that acknowledges the intricate, adaptable nature of the healthcare system.

### **2.9.1 NRHM- Health Systems Strengthening**

The integration of Reproductive, Maternal, Newborn, Child, and Adolescent Health Services (RMNCH+A) into the National Health Mission (NHM) encompasses all previous RCH-II schemes and programs, presenting an opportunity to build upon past initiatives. Emphasizing a life cycle strategy and continuum of care is crucial for enhancing the health of mothers and children. This includes recognizing adolescence as a distinct life stage and prioritizing access to reproductive health services, nutritional support, and information. The policy aims to strengthen the linkages between community and facility-based care and improve referrals across different levels of the healthcare system, establishing a seamless care pathway. The "Strategic Approach to RMNCH+A in India" addresses these multifaceted issues, focusing on delivering comprehensive services to mothers, newborns, children, adolescents, and individuals of reproductive age. Key maternal health initiatives involve enhancing access to skilled obstetric care, expanding coverage and quality of antenatal and postnatal services, and promoting access to skilled birth attendants.

Healthcare facilities prioritization can lead to improved attendance rates, increased rates of institutional delivery, and better access to emergency obstetric care. This involves identifying and upgrading health facilities to serve as comprehensive delivery points for RMNCH+A services, with the aim of ensuring equitable access for all segments of the population within a district. The private healthcare providers may be enlisted to supplement public services where necessary, while medical personnel with specialized skills will be essential for delivering emergency obstetric care. The Janani Suraksha Yojana (JSY), which promotes institutional delivery, will undergo revisions. The key objective is to progress towards Universal Health Coverage (UHC) by expanding a comprehensive package of free and cashless services, currently available to all pregnant women and sick infants up to one year of age through the Janani Shishu Suraksha Karyakram (JSSK). This initiative aims to minimize financial barriers to healthcare and enhance access to services by eliminating out-of-pocket expenditures in government facilities. Additionally, efforts will be made to enhance emergency response and patient transportation systems, facilitating improved access to institutional care through the provision of referral and transport services for inter-facility transfers and out-of-facility referrals. Enhanced information systems, including mother and child name-based tracking and facility and community-based monitoring and data recording, will be implemented to enhance the monitoring of pregnancy care. The focus will be on comprehensive women's health, including the management of pregnancy-related complications, non-communicable diseases, and the screening and treatment of common cancers such as cervical and breast cancer.

The objective is to enhance access to safe abortion services, along with post-abortion contraception counseling, by expanding the provider network. All facilities offering Medical Termination of Pregnancy (MTP) services will ensure round-the-clock availability, including those upgraded to provide Comprehensive Abortion Care (Level 3). Healthcare providers will receive training in various techniques, including manual vacuum aspiration (MVA) and medication-induced abortion. Strategies for preventing and managing Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs) involve integrating RTI/STI prevention into community and adolescent health education campaigns, providing diagnosis and treatment services at healthcare facilities, and managing syndromic illnesses across all levels of care. Addressing gender-based violence against women is crucial, as it can lead to physical,

reproductive, and mental health challenges. Routine visits for reproductive and child health services serve as opportunities to identify individuals at risk of gender-based violence.

### **2.9.2 Healthcare for Infants and Young Children**

A comprehensive care system will be established, spanning from community to facility levels, which will include home-based assistance provided by Accredited Social Health Activists (ASHAs) and Auxiliary Nurse Midwives (ANMs). At the community level, Anganwadi Workers (AWWs) will offer care for common ailments such as respiratory infections, diarrhea, and fevers, providing initial treatment and facilitating referrals when necessary. To ensure proper care for newborns, Newborn Care Corners staffed with trained professionals will be set up at all delivery sites. Facilities will also be equipped with Newborn Stabilization Units and Special Newborn Care Units to cater to sick newborns. Efforts will focus on enhancing both public health facilities and engaging private providers for efficient referrals. Additionally, the establishment of Nutrition Rehabilitation Centers (NRC) will facilitate the institutional care of sick children, particularly those with Severe Acute Malnutrition (SAM), while also integrating community-based care for SAM cases. Promoting Infant and Young Child Feeding (IYCF) practices and providing nutrition counseling, including support for breastfeeding, complementary feeding, and micronutrient supplementation, will be emphasized through various platforms like Village Health, Sanitation, and Nutrition Committees (VHSNC) and Village Health and Nutrition Days (VHNDs). Addressing child mortality, particularly in children under five years old, will be another focal point for reporting and review processes.

The objective is to achieve a routine immunization rate of over 80% in every district through continuous Pulse Polio campaigns. Additionally, new and underutilized vaccines will be introduced based on guidance from the National Technical Advisory Group for Immunization. Improving the density of Ice Lined Refrigerators (ILR) and deep freezers can optimize cold chain management. Ensuring sufficient vaccination sessions and locations, along with logistical support to reach rural communities, is crucial for effective intervention. Surveillance for vaccine-preventable diseases will be integrated with the Integrated Disease Surveillance Programme (IDSP), and children will be tracked individually through the Mother and Child Tracking System (MCTS).

### **2.9.3 Screening and Early Intervention Services for Child Health**

The aim is to enhance the overall well-being of children aged 0 to 18 years by early detection and comprehensive management of birth defects, diseases, deficiencies, developmental delays, and disabilities. This will be achieved through the implementation of the Rashtriya Bal Swasthya Karyakram (RBSK), which will focus on at least 30 identified health conditions for timely detection and free treatment by dedicated mobile health teams stationed in every block across the nation. District Early Intervention Centers (DEIC) will be established to provide further screening, management, and referral support to children with health issues. The screening mechanism will involve facility-based and community-based newborn screening, as well as regular check-ups by mobile health teams at Anganwadi Centers for children aged six weeks to six years, and in government schools for children aged six to eighteen. This initiative aims to not only prevent the progression of health conditions but also reduce out-of-pocket expenses among marginalized communities. Furthermore, the Child Health Screening and Early Intervention Services will generate nationwide epidemiological data on birth defects, diseases, deficiencies, developmental delays, and disabilities, which will inform future planning and area-specific interventions. Collaboration with public health institutions, private sector, and NGOs will be encouraged to provide specialized diagnostics and services, with reimbursement based on agreed costs. Additionally, convergence with existing schemes of other ministries will be facilitated, and the NHM-supported patient transport network will be utilized for transferring sick children to higher facilities.

DEIC will be set up to offer additional screening and management assistance for children facing health challenges, along with guiding them to suitable providers. To ensure comprehensive health screening for all children, a strategy will involve facility-based newborn screening at public health facilities through existing healthcare staff, as well as community-based screening conducted by ASHAs during home visits. Children aged six weeks to six years will undergo routine examinations by specialized Mobile Health Teams at Anganwadi Centers.

Age group of children from six to eighteen will undergo health check-ups in government and government-aided schools. Nutrition counseling, treatment for RTIs/STIs, necessary referrals, and the distribution of commodities such as iron-folic acid tablets, condoms, and oral

contraceptive pills will be provided. Knowledgeable and experienced counselors will offer information and guidance, with a particular focus on vulnerable and marginalized groups. Encouragement of menstrual hygiene practices in rural areas will involve promoting the use of sanitary napkins, supported by comprehensive information provided by ASHAs. The National Iron Plus Initiative will include the provision of weekly iron and folate supplementation (WIFS) to address nutritional anemia among adolescent boys and girls in both rural and urban settings. This initiative will also feature nutrition and health education sessions, screening for moderate/severe anemia, and appropriate referrals. Additionally, there will be biannual deworming with Albendazole 400mg, spaced six months apart, to control helminth infestation, along with counseling to improve dietary intake and prevent intestinal worm infestation.

#### **2.9.4 Family Planning**

Addressing unmet contraceptive needs by offering a range of family planning options should be the priority. Tailored approaches need to be adopted for high-fertility states and others. In high-fertility states, the objective is to reduce fertility rates to replacement levels, while states already at replacement levels will aim to maintain them. Family planning services will play a significant role in reducing maternal and child morbidity and mortality and stabilizing the population. Emphasis will be placed on post-partum and post-abortion contraception. All states will be encouraged to promote spacing methods, particularly intrauterine contraceptive devices (IUCDs). Postpartum IUCD insertion will be promoted as a key spacing method to capitalize on the increase in institutional deliveries. AYUSH doctors will also be trained to provide IUCD services. Male involvement, including male sterilization, will be promoted. Doorstep delivery of contraceptives through ASHAs and other channels will be strongly encouraged. Improved family planning service delivery will focus on enhancing access, availability, and quality counseling services provided by dedicated counselors, enhancing provider technical skills, and increasing beneficiary awareness. Every year, during the observance of World Population Day, month-long nationwide campaigns will be conducted in all states and districts throughout the country. AYUSH doctors will also receive training to provide IUCD services. Encouragement will be given for male involvement, including male sterilization. ASHAs will distribute contraceptives directly to households. The initiative to compensate individuals opting for sterilization to offset wage losses, for both the recipient and the service provider (including their team), will continue.

The National Family Planning Indemnity Scheme (NFPIS) will safeguard clients from issues associated with sterilization, such as complications and failures, while also protecting practitioners and accredited institutions from legal liabilities. Monitoring of claims under the NFPIS program will be conducted by the State Quality Assurance Cell, while alternative avenues will be actively promoted. Efforts will be made to enhance the accessibility, availability, and quality of family planning and counseling services. In states with high fertility rates, additional strategies will be implemented, including promoting healthy spacing after marriage and between births through the involvement of ASHAs as community motivators and counselors, intensifying training programs for family planning providers, engaging private providers as necessary to expand the utilization of spacing and limiting methods, and significantly increasing the number of facilities and providers offering a comprehensive range of contraceptive services. Additionally, behavior change communication activities will be conducted to improve access and reduce unmet needs.

Enhancing the unfavorable child sex ratio necessitates health-related measures like stricter enforcement of the PCPNDT Act, improved monitoring and sensitization of the medical community, and increased involvement of civil society. This involves actions such as tackling son preference, addressing gender bias in healthcare for girls, monitoring gender ratios in hospital admissions for children, and offering proactive assistance for girls through ASHA and Anganwadi initiatives. Additionally, cross-cutting efforts such as behavior change communication and addressing socioeconomic factors complement the aforementioned measures. The consolidation of human resources and infrastructure for RMNCH+A services with the facility strengthening component is essential. Ongoing training, technical support, supervision, and management assistance from Program Management Units at various levels, including SIHFW, SHSRC, and District Knowledge Centers, will play a crucial role in the RMNCH+A program.

### **2.9.5 Non-Communicable Disease Control Programmes**

The Government has taken initiatives to target non-communicable diseases and launched following programmes :

- (a) National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Diseases & Stroke (NPCDCS)
- (b) National Programme for Control of Blindness & Visual Impairment (NPCBVI)
- (c) National Mental Health Programme (NMHP)
- (d) National Programme for Healthcare of Elderly (NPHCE)
- (e) National Programme for the Prevention & Control of Deafness (NPPCD)
- (f) National Tobacco Control Programme (NTCP)
- (g) National Oral Health Programme (NOHP)
- (h) National Programme for Palliative Care (NPPC)
- (i) National Programme for Prevention & Management of Burn Injuries (NPPMBI)

## **2.10 Health Care System in India**

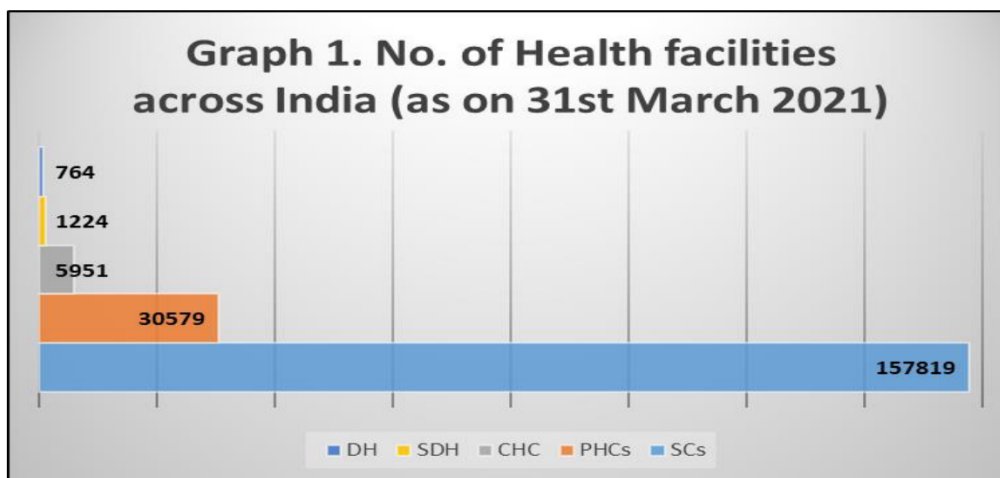
According to the 2018 Health Index report, compiled by the World Bank and Niti Aayog, Kerala has been identified as the top-performing state in terms of healthcare outcomes. Kerala's health indicators surpass the national average and are on par with those of developed nations. This remarkable improvement in health outcomes is attributed to the extensive development of healthcare across various sectors—public, private, and cooperative—alongside increased awareness among the population regarding health-related.

The establishment of Ayushman Bharat- Health and Wellness Centres (AB-HWCs) in 2018 was a watershed moment in India's public healthcare history. Building on fifteen years of implementation of the National Health Mission's sustained and systematic, yet flexible support to strengthening health systems across multiple components to meet state-specific needs, the AB-HWC initiative provides the best possible opportunity in a country as diverse as ours to achieve a significant milestone in the journey to Universal Health Coverage. The nation has made a commitment to guarantee that the 1,50,000 Sub Well-being Centres (SHCs) and Essential Well-

being Centres (PHCs) in country and urban ranges that serve our 135-crore individuals, are being changed to Ayushman Bharat - Well-being and Wellness Centres (AB-HWCs) and be able to offer widespread get to to Comprehensive Essential Well-being Care (CPHC) administrations by 2022. Following the commencement of the Ayushman Bharat initiative, Sub Centres and Primary Health Centres are being strengthened by transforming them into Health and Wellness Centres, which would provide full Primary Healthcare services. SCs and PHCs have been turned into Health and Wellness Centers.

As of March 31, 2021, there are 157819 Sub Centres operating in both rural and urban areas of India. These include 156101 SCs in rural areas and 1718 SCs in urban areas. Similarly, 30579 Primary Health Centres operate in both rural and urban areas of India. These include 25,140 PHCs in rural areas and 5439 PHCs in metropolitan areas. There are 5951 Community Health Centres functional in the country, consisting of 5481 rural and 470 urban CHCs. There are 1224 Sub Divisional/District Hospitals in the country, serving both rural and urban areas. District Hospital (DH): There are 764 District Hospitals operating in the country, which are serving both rural and urban areas.

The Graph 1 shows the graphical representation of total SCs, PHCs, CHCs, SDHs & DHs functional in India as on 31st March 2021.



Total figures of SCs and PHCs in the **Graph 1** includes the number of HWCs also.

**Figure 1 - Health facilities across India**

**Source – Rural health statistics 2020-21**

## 2.11 National Digital Health Mission

On August 15, 2020, the National Digital Health Mission, also known as Ayushman Bharat Digital Mission, was unveiled. Every Indian receives a Health ID, which includes test results, medical history, doctor visits, prescribed drugs, and diagnoses. This portable and easily available health account ensures that patients receive continuous care even if they migrate or see new providers. The holistic, voluntary program brings together doctors, hospitals, pharmacies, and insurance companies to create a full digital health infrastructure. As of December 22nd, 2023, 50 crore individuals have an Ayushman Bharat Well-being Account (ABHA) number as their one of a kind well-being recognizable proof, over 1.5 crore patients have utilized the ABHA-based moment OPD enlistment benefit, and more than 50 lakh individuals utilize the ABHA app to oversee their well-being information. NDHM envisions the taking after particular objectives: To build cutting-edge digital health systems, manage the core digital health data, and the infrastructure needed for its seamless exchange.

- (a) Establish registers at the appropriate level to produce a single source of truth in terms of clinical facilities, healthcare experts, health workers, medications, and pharmacies.
- (b) Enforce the use of open standards by all national digital health stakeholders.
- (c) Develop a personal health record system that meets international standards and is easily available to individuals, healthcare professionals, and service providers with their informed consent.
- (d) Promote the development of enterprise-class health application systems that align with the Sustainable Development Goals for health.
- (e) Adopt the best principles of cooperative federalism while working with the States and Union Territories to realize the objective.
- (f) To ensure that healthcare institutions and professionals in the private sector collaborate actively with public health authorities in the development of the NDHM, through a combination of prescription and promotion.
- (g) Ensure national portability in the provision of health services.
- (h) Encourage healthcare workers to employ clinical decision support (CDS) systems. 10. Improve health sector management through data analytics and research.
- (i) Provide for improving the efficiency and effectiveness of governance at all levels.

- (j) Supporting effective healthcare quality measures.
- (k) Strengthening existing health information systems to meet standards and integrate with the proposed NDHM.

### **2.11.1 Opportunity for the National Digital Health Mission**

The current robust public digital infrastructure, which includes Aadhaar, the Unified Payments Interface, and the widespread use of the Internet and mobile phones (the JAM trinity), provides a solid foundation for developing the building blocks of NDHM. The ability to digitally identify people, doctors, and health facilities, facilitate electronic signatures, ensure nonrefundable contracts, make paperless payments, securely store digital records, and contact people creates opportunities for streamlined healthcare information through digital management. Ayushman Bharat — Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) has successfully used the available public digital infrastructure to provide end-to-end services via an information technology (IT) platform, from beneficiary identification to hospital admission and treatment, discharge, and paperless payment to hospitals. The AB-PMJAY encounter can be utilized to expand the reach of computerized well-being to all occupants and make an open and interoperable well-being administration framework that enables citizens, healthcare experts, the government, and analysts. Rising advances such as counterfeit insights (AI), the web of things (IoT), blockchain, and cloud computing offer modern openings for encouraging a more all-encompassing computerized well-being environment, which can increment evenhanded get to well-being administrations, make strides in well-being results, and lower costs.

### **2.11.2 Benefits and Impacts**

The introduction of NDHM is projected to considerably improve the efficiency, efficacy, and transparency of health care delivery in general. Patients will be able to securely save and access their medical records (such as prescriptions, diagnostic results, and discharge summaries), as well as share them with healthcare practitioners to guarantee proper treatment and follow-up. They will also have better access to accurate information about health facilities and service providers. Furthermore, patients will be able to receive health services remotely via teleconsultation and e-pharmacy. NDHM will offer citizens with correct information, allowing

them to make educated decisions and increasing healthcare professionals' accountability. Individuals will have the option of accessing both public and private health services through NDHM, which will facilitate compliance with established rules and protocols, as well as assure transparency in service pricing and accountability for health services given.

Similarly, health care practitioners from all disciplines will have improved access to patients' medical histories (with informed consent) to prescribe more suitable and effective healthcare measures. The linked ecosystem will also provide a better continuum of care. NDHM will help digitize the claims process, allowing for faster reimbursement. This would improve the general convenience of providing services among health care providers. At the same time, policymakers and programme managers will have improved access to data, allowing the government to make more informed decisions. Improved macro- and micro-level data quality will allow for more advanced analytics, the use of health biomarkers, and improved preventative healthcare. It would also enable geography and demography-based monitoring and appropriate decision-making to inform and boost the implementation of health programmes and policies.

### **2.11.3 Challenges to Healthcare in India**

The Indian healthcare scene is characterized by a wide run of contrasts. At one end of the scale are sparkling steel and glass complexes that give high-tech healthcare to the well-heeled, generally metropolitan Indians. On the other conclusion are the shaky stations in the remote ranges of the "other India" endeavoring quickly to live up to their title as health subcenters, longing to be changed into hallowed places of well-being and wellness, a story we will have to hold up to see unfurl. With the current rate of alter, this range is anticipated to spread more, resulting in indeed more noteworthy complexity in the future. Our nation started with a brilliant bequest of open well-being, as prove by references to accounts of the Indus valley civilization (5500-1300 BCE) that recognize "Arogya" as reflecting "holistic well-being." The Chinese pioneer Fa-Hien grows on this, mentioning the awesome healing care offices accessible at the time. Nowadays, we are a nation of 1,296,667,068 individuals (evaluated as of this composing), speaking to colossal differing qualities and in this way an enormous challenge to the healthcare conveyance framework. This highlights the WHO subject for 2018, "Universal Well-

being Coverage-Everyone, All over." What are the challenges in conveying healthcare to the "everyone" which must incorporate the socially distraught, the economically challenged, and the systemically marginalized? What keeps us from coming to the "everywhere," which must incorporate the inaccessible ranges in our Himalayan locale for occurrence, where until recently, essentials were carried by discuss drive helicopters. While there are several problems, I present three "A's" for consideration: Awareness, or lack thereof: How well does the Indian population understand crucial health-related issues? There have been numerous studies on awareness, but gaps in awareness appear to exist throughout our country. While there are several problems, I present three "A's" for consideration:

Awareness, or lack thereof - How well does the Indian population understand crucial health-related issues? There have been numerous studies on awareness, but gaps in awareness appear to exist throughout our country. In two trials, just one-third of pregnant moms had adequate awareness of breastfeeding practices. Moving further in the lifecycle, a study in urban Haryana discovered that just 11.3% of the adolescent girls evaluated were correctly informed about major reproductive health issues. A review article on geriatric morbidity discovered that 20.3% of participants were aware of the common causes of prevalent illness and how to prevent them.

Why is health knowledge so low among the Indian population? Low educational status, poor functional literacy, a lack of emphasis on education within the healthcare system, and a low priority for health in the population are some of the possible answers. What is good is that efforts to promote awareness have largely shown favorable results. For example, a study in Bihar and Jharkhand discovered that a behavioral modification intervention raised awareness and opinions on abortion. According to an evaluation of the impact of interventions on teenage reproductive health, girls' awareness levels of health concerns, environmental health, nutritional awareness, and reproductive and child health increased significantly after the intervention. The message is clear – we must strive to raise awareness in those whom we work with and must encourage the younger generation to believe in the power of education for behavior change. The Oxford dictionary defines access (to healthcare) as "the right or opportunity to use or benefit from (healthcare)" Again, when we move beyond the relatively well-connected urban populations to the urban impoverished and their rural counterparts, the question "What is our population's level of access to high-quality healthcare?" becomes vitally pertinent. According to a 2002 research,

access is a multifaceted notion that considers elements such as availability, supply, and consumption of healthcare services. Access barriers in the financial, organizational, social, and cultural realms might limit service consumption, even when they are available. Physical reach is one of the essential variables of get to, depicted as "the capacity to enter a healthcare office inside 5 km from the put of home or work". Utilizing this measure, inquire about in India in 2012 demonstrated that in country locales, fair 37% of individuals were able to utilize IP offices inside a 5 km separate, though 68% were able to visit outpatient offices. In their 2012 consider, Krishna and Ananthapur contend that the more rural (nation) one's presence - the more one lives from towns - the higher the chances of malady, malnourishment, slightness, and untimely mortality. Indeed if a healthcare office is physically available, what is the quality of care that it offers? Is that care persistently accessible? In conclusion, inquire about on the associations between composing and perusing, as well as strategies for motivating understudies in both ranges, gives shrewd information that may be utilized to classroom instruction, particularly in the setting of Malaysian essential schools. With the offer assistance of analysts and researchers like Vicki A. Jacobs, April Camping, Karen R. Harris, A. Angelique Aitken, John M. Wilson, Jeanne Wdowin, and Clarence Ng, teachers can superior get it how they can consolidate composing and perusing into the lessons they educate and empower understudies to interface with writings in significant ways. As community medicine and public health researchers, we must promote discussion about the factors that influence healthcare access. We should identify and analyze potential barriers to access in the financial, geographic, social, and system domains, and do everything we can to get our students and peers to consider the issue of access to high-quality healthcare.

Healthcare workforce shortage or crisis: Any discussion of healthcare delivery should include perhaps the most important character involved: the human workforce. Is there an acceptable number of personnel, are they appropriately trained, are they equally dispersed, and is their morale in providing the service reasonably high?

According to a 2011 poll, India has about 20 health workers for every 10,000 inhabitants, with allopathic doctors accounting for 31%, nurses and midwives 30%, pharmacists 11%, AYUSH practitioners and others 9%. This labor is unevenly spread, with the majority opting to work in areas with superior infrastructure and chances for family life and growth. Overall, the poorer

regions of Northern and Central India have lower health worker densities than the Southern states.

While the private sector contributes for most health spending in the country, the state-run health sector remains the only choice in many rural and peri-urban areas. The lack of a qualified individual at the point of delivery after traveling a long distance is a significant deterrent to the population's health-seeking behavior. According to the Government of India's rural health statistics (2015), around 10.4% of the sanctioned jobs of auxiliary nurse midwives are empty, with male health workers accounting for 40.7% of the total. Twenty-seven percent of doctor positions at PHCs were unfilled, accounting for more over a quarter of the sanctioned postings.

Given that the private sector is the dominant participant in healthcare service delivery, there have been numerous initiatives aimed at leveraging corporate expertise to deliver public healthcare services. The most recent proposal is a new statewide plan that will accredit commercial providers to provide government-reimbursable services. In a perfect environment, this would result in increased coverage levels nevertheless, does it reflect a transfer of responsibility and an acknowledgement of the public health system's shortcomings?

As public health trainers and educators, how are we preparing our trainees to provide health care in the necessary manner, at the appropriate location, and at the appropriate time? It is time for a human health policy to be articulated, which must outline measures to ensure that the last Indian is taken care of by a sensitive, trained, and competent healthcare worker.

Reasonableness or the taken a toll of healthcare: Very essentially, how exorbitant is healthcare in India, and more vitally, how numerous can bear the taken a toll of healthcare? The private segment is broadly recognized as the driving player in India's healthcare industry. Nearly 75% of healthcare investing begins from family budgets, and disastrous healthcare costs are a major cause of impoverishment. The issue is exacerbated by a need of direction in the private division, which comes about in varieties in benefit quality and fetched. The open division gives healthcare at a moo or no fetched, but it is seen to be dishonest, of destitute quality, and frequently not the to begin with choice, unless one cannot bear private treatment. Neighborhood and national activities hold the key to tending to the issue of reasonable healthcare. The government must increment well-being investing from <2% to 5%-6% of GDP in the brief future. This would

result in a much-needed infrastructural boost in country and marginalized communities, as well as moved forward get to to healthcare administrations, foundation, and labor. The much-anticipated national well-being protections program ought to be carefully executed, guaranteeing that indeed the most defenseless individuals of the target populace are enlisted and get it what the conspire involves. Fetched awareness must be ingraining in the healthcare framework at all levels, both locally and broadly. Maintain a strategic distance from inefficient uses, high-cost alternatives, and the unneeded utilization of tests and methods. The standard therapeutic understudy is not uncovered to questions of taken a toll of care amid their ponders. Uncovering youthful minds to healthcare financial matters challenges will ideally offer assistance them realize the gravity of the circumstance and the need to address it in any way they can.

Accountability, or need thereof: Being responsible is portrayed as the methods and forms by which one party protects and acknowledges duty for its acts. It may be claimed that as healthcare experts, we are responsible for a wide run of people and voting demographics. We are essentially dependable to our clients for giving the administrations that they are entitled to. Our managers accept that the craved level of benefit will be conveyed. Our peers and colleagues need us to maintain a code of behavior that will permit the calling to flourish concordantly. Our family and companions have their claim desires of us, but our government and nation need us to contribute to the more noteworthy great. Otherworldly or devout measurement may too be considered, where we are responsible to the standards of our faith.

In these unstable times, all the associations demonstrated over have been strained, with the client-provider pivot being the most seriously affected. Whereas over the top desires may be at the root of much of the push, it is basic for the calling to recognize that the to begin with step toward advance is recognizing the issue and its potential fundamental causes. Morals in healthcare ought to be a energetically talked about theme inside the calling or maybe than exterior it.

Communication is an imperative capacity to instill in the youthful experts who will lead the field tomorrow. As pioneers in community pharmaceutical and open well-being, we may be best situated to put this tall up.in the list of abilities to be bestowed. A great communicator is superior put to bargain with the weights of the connections with client, manager, peer, colleague, family,

companion, and government. The five issues recorded over posture dangers to the public's well-being in our awesome nation. As we plan to confront a future full of opportunity and vulnerability in rise to degree, let us recognize these and other challenges and get ready to meet them, recognizing that the battle against destitute well-being is the battle against everything dangerous to humanity. Reasonableness or the taken a toll of healthcare: Very essentially, how exorbitant is healthcare in India, and more vitally, how numerous can bear the taken a toll of healthcare? The private segment is broadly recognized as the driving player in India's healthcare industry. Nearly 75% of healthcare investing begins from family budgets, and disastrous healthcare costs are a major cause of impoverishment. The issue is exacerbated by a need of direction in the private division, which comes about in varieties in benefit quality and fetched. The open division gives healthcare at a moo or no fetched, but it is seen to be dishonest, of destitute quality, and frequently not the to begin with choice, unless one cannot bear private treatment. Neighborhood and national activities hold the key to tending to the issue of reasonable healthcare. The government must increment well-being investing from <2% to 5%-6% of GDP in the brief future. This would result in a much-needed infrastructural boost in country and marginalized communities, as well as moved forward get to to healthcare administrations, foundation, and labor. The much-anticipated national well-being protections program ought to be carefully executed, guaranteeing that indeed the most defenseless individuals of the target populace are enlisted and get it what the conspire involves. Fetched awareness must be ingraining in the healthcare framework at all levels, both locally and broadly. Maintain a strategic distance from inefficient uses, high-cost alternatives, and the unneeded utilization of tests and methods. The standard therapeutic understudy is not uncovered to questions of taken a toll of care amid their ponders. Uncovering youthful minds to healthcare financial matters challenges will ideally offer assistance them realize the gravity of the circumstance and the need to address it in any way they can.

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## **2.12 Health system preparedness with respect to COVID-19**

The COVID-19 pandemic highlighted the constraints and limitations of health systems globally, regardless of maturity. COVID-19 highlighted flaws in India's healthcare system. The National Disaster Management Act of 2015 was triggered later in early 2020. In March 2020, a nationwide civil curfew and lockdown were implemented to delay the outbreak and prepare health infrastructure and workers. The initial lockdown was one of the most stringent in the world (March to May 2020), and resulted in significant economic and social costs. The lockdown brought a near-complete standstill to all local and interstate movement of people, restricting economic and social activities. Markets, workplaces, schools, international borders and state borders were closed. Many state governments also cited the Epidemic Diseases Act of 1897,

which empowered them to prohibit mass gatherings. The lockdown was intended to delay the peak of the pandemic's first wave, giving the health-care system time to prepare. Nonetheless, this move came at a heavy cost in terms of suffering for informal sector workers, many of whom were migrants who had lost their jobs and lacked social protection. The MoHFW and other ministries implemented a number of health and non-health initiatives to slow the spread of COVID-19. By mid-October 2020, when India's first pandemic peak was reached, there were 15 239 dedicated COVID-19 facilities, providing 1.2 million isolation beds (without oxygen support), 264 107 isolation beds with oxygen support, and 76 709 non-ventilator supported and 39 476 ventilator-supported ICU beds. Despite these efforts, the public health sector experienced a shortage of beds and ventilators (Parliament of India, 2020).

This was most evident during the second wave in March-June 2021, when the daily number of positive cases exceeded 400 000, resulting in shortages of crucial medicines, hospital beds, and medical oxygen in several areas. COVID-19 testing laboratories grew from 31 in February 2020 to 1614 in September 2020, 2879 in August 2021, and 3306 in February 2022, with 55% of them being private. Similarly, the number of COVID-19 tests were ramped up with 2.1 million tests done per day in May 2021. Testing was offered at public and private sectors, with prices capped. Alongside efforts to secure vaccine doses, and develop and indigenous vaccine were made, and strengthen the production of PPEs. A coordinated effort by the central and state governments has resulted in an increase in the general population's vaccination rate. In January 2022, vaccination for 15-18-year-olds was made available, as well as a third preventative dose for healthcare workers and the elderly over the age of 60 years. By March 2022, almost 1.8 billion total doses of COVID-19 vaccinations had been provided to people aged 15 and up, with 800 million second doses administered (MoHFW, 2022). To speed vaccine coverage, government facilities and private hospitals (numbering over 40,000) are now involved. Although voluntary, the COVID-19 immunization push was carried out using IT apps such as COWIN 2.0 or the Aarogya Setu App, with eligible individuals able to arrange appointment periods to avoid overcrowding and adhere to social distance standards. The immunization was initially free at both government and commercial sector facilities, but later the private sector could charge between INR 780 and INR 1410. Islam. Q.M.(2021) on Innovation in PHC in the 21st century has analyzed and brought out that COVID-19 has shown the world the importance

of an urgent need for revitalizing the health system based on a strong PHC foundation. He says that the world population is facing new and emerging diseases, transiting from communicable diseases to NCDs, and maternal, newborn, child adolescent and reproductive health care still remains an unfinished agenda. He has brought out various innovations in PHCs in countries like New Zealand, Belgium, Thailand, India and Bangladesh like the use of community-level family practitioners, online services, telephone services, coaching technology-enabled care models etc.

### **2.13 Public Health Schemes in Maharashtra**

Maharashtra has been at the forefront of healthcare development in the nation. It was one of the first states to decentralize basic healthcare administration through Zilla Parishads, beginning in 1961. Furthermore, under the Minimum Needs Program, Maharashtra was among the first states to meet legislated standards for primary health centers, subcenter's, and rural hospitals. The state has the largest private health industry in India, with extensive reach. The state of Maharashtra has a well-developed health infrastructure, including a three-tier system that provides comprehensive health care to residents, particularly in rural areas. The fundamental objective set by the division is to give quality well-being administrations to the country individuals especially vulnerable segment to accomplish this objective, the state is actualizing a assortment of national health projects. The state has made advance on a assortment of well-being files. Guinea worm, smallpox, and stestoaoasis are all gone.. Similarly, the state has eliminated leprosy and newborn tetanus. Since 2011, no cases of polio have been documented in Maharashtra. While the State successfully implements national health programmes like as malaria eradication, leprosy control, and blindness control, the Family Welfare strategy remains the central topic of the public health strategy. The Public Health Sector focuses on consolidating infrastructure facilities like as Sub-Centres, Primary Health Centers, and Community Health Care Centers to provide health services to all parts of the state. Mental health care, AIDS prevention, cancer control, and special health facilities have received increased attention in tribal regions. Malaria, Gastroenteritis, and other water-borne infections are common during the monsoon season in tribal districts like as Thane, Nashik, Dhule, Amravati, and Gadchiroli.

The Health Department is also responsible for supervising the medical facilities offered under the ESIS Gaikar.B.Vilas (Nov 21) in his study on the assessment of Maharashtra State Health System has brought out that Maharashtra state has increasingly gained control over major diseases like Guinea worm, smallpox, polio and leprosy. National health initiatives such as malaria eradication, leprosy prevention and blindness control are successfully implemented by the state. He has brought out in his analysis that in tribal areas the State Health Department has concentrated on mental health cases, AIDS prevention and cancer prevention. He has brought out from his study that only a few cities like Pune, Mumbai, Nasik, Sangli etc have the best facilities for health improvement but is needed in all cities and villages. He has suggested based on data analysis that Central govt schemes have to be properly adjusted and implemented in the state. Budgetary allocation for various health schemes by the govt needs to be properly executed and funds properly utilized. There is a need to provide publicity for various health schemes so that the poor and needy are benefitted. Accountability of health schemes needs to be checked. He has suggested that govt hospitals should be well equipped with entire necessary infrastructure to deliver health schemes. There exists a need to properly implement the National Ayush Mission.

The Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) and the Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) were presented in the state on April 1, 2020. Joined together India Protections Company Constrained (a open division undertaking company) gives well-being protections scope to recipients through the protections mode, while the State Well-being Confirmation Society gives scope through the affirmation mode. The State Health Assurance Society pays an protections premium of Rs. 797/- per family per year to the Insurance Company in quarterly installments on sake of qualified recipient families. The Mahatma Jyotirao Phule Jan Arogya Yojana is entirely upheld by the Maharashtra government. The Pradhan Mantri Jan Arogya Yojana is mutually bolstered by the Government of India and the Government of Maharashtra in the proportion of 60:40.

### **2.13.1 Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY)**

MJPJAY, launched in 2012, is a flagship health insurance policy that provides cashless care to families with an annual income below a particular threshold. It covers approximately 1000

medical operations, including surgeries, therapies, and treatments for a variety of conditions. The program guarantees equitable access to quality healthcare by enrolling public and commercial hospitals throughout the state.

### **2.13.2 Rajiv Gandhi Jeevandayee Arogya Yojana (RGJAY)**

RGJAY, which was started in 2012, seeks to provide full healthcare coverage to both below- and above-poverty-line families in Maharashtra's 29 designated districts. It covers tertiary care operations such as heart surgery, neurosurgery, organ transplants, and so on, up to a certain point. The scheme protects underprivileged sectors of society from catastrophic healthcare costs.

### **2.13.3 National Health Mission (NHM)**

NHM is a centrally financed program pointed at improving healthcare conveyance in both rustic and urban ranges. Maharashtra's National Well-being Mission centers on a assortment of exercises, including maternity and child well-being, immunization, irresistible malady administration, and healthcare infrastructure building. It centers on community association and decentralized healthcare administration through Authorize Social Well-being Activists (ASHAs) and Town Health Sanitation and Sustenance Committee.

### **2.13.3 Maharashtra State Rural Livelihood Mission (UMED)**

UMED, which was established in 2011, seeks to improve the socioeconomic position of rural areas by increasing livelihood options and boosting health and education services. It focuses on improving access to healthcare by establishing community-based health facilities, training health workers, and providing necessary drugs and diagnostics

### **2.13.4 Maharashtra Arogya Mandal (MAM)**

MAM is a state-run agency dedicated to promoting preventative, promotive, and curative healthcare services. It operates hospitals, dispensaries, and health facilities throughout Maharashtra, primarily in rural and underdeveloped areas, to provide inexpensive healthcare to the population.

### **2.13.5 Janani Shishu Suraksha Karyakram (JSSK)**

It ensures that all pregnant women who birth in public health facilities receive free delivery, including caesarean sections. This indicates a change toward an entitlement-based strategy that includes free prescriptions, consumables, diagnostics, meals during the stay, blood transfusions, and transportation from home to the health facility. The benefits extend to sick newborns up to one year of age who visit public health facilities. This system is administered uniformly across all States and Union Territories, stressing the commitment to provide free maternity and newborn healthcare.

### **2.13.6 Rashtriya Bal Swasthya Karyakram (RBSK)**

A Child Health Screening and Early Intervention Service was introduced in February 2013 to check for childhood disorders including as developmental delays, impairments, birth defects, and inadequacies. The plan would cover around 27 crore children aged 0 to 18 years old and will also give free treatment, including surgery, for health conditions identified through this campaign.

### **2.13.7 AIDS Control Program**

Maharashtra State Aids Control Society and Mumbai Aids Control Society are in charge of carrying out the National AIDS Control Program. The emphasis is solely on public awareness campaigns, education, and targeted population monitoring. Surveillance is carried out by screening blood samples from STD clinic patients and women seeking prenatal care.

### **2.13.8 Family Welfare Program**

The Maharashtra government has implemented the Family Welfare Program (FWP) in accordance with Indian government rules, largely for population control. The state's Total Fertility Rate (TFR) has already reached 1.6 by 2022.

### **2.13.9 State Blood Transfusion Council**

The State Blood Council was established in Maharashtra on January 4, 1996, by Supreme Court ruling. To ensure an adequate supply of healthy blood, the Blood Transfusion Council established State Blood Transfusion Units around the state.

An analysis of these numerous initiatives, taking into account the money given to these schemes, suggests that the government's financial allocation for the various health schemes be carried out and monies used correctly. There is a need for widespread awareness for various health plans so that the poor and needy might benefit. The key actions carried out under NRHM include school health checks. ASHA, AYUSH, and other initiatives required appropriate implementation and monitoring. There is a requirement to survey the responsibility of health-care plans. Government hospitals ought to be completely arranged to give health-care administrations. The National AYUSH Mission needs to be legitimately executed. There is potential for restorative tourism in the nation and the state of Maharashtra, in this way developing the fundamental framework may be conceivable. The Mahatma Jyotiba Phule Jan Arogya Yojana in Maharashtra needs to be productively implemented, and the benefits ought to reach the unreached. Tables below shows the data on health outcomes, service delivery, health factors, equity in Maharashtra State, and demographics in comparison to India.

| <b>HEALTH OUTCOMES</b>  |             |       |
|---|-------------|-------|
|   | MAHARASHTRA | INDIA |
| Maternal Mortality Ratio <sup>1</sup>   | 46 ↓        | 113   |
| Infant Mortality Rate <sup>1</sup>  | 19 ↓        | 32    |
| Under five mortality rate <sup>2</sup>  | 22 ↓        | 36    |
| Neonatal mortality rate <sup>2</sup>  | 13 ↓        | 23    |
| Children under 5 years who are severely wasted (weight-for-height) (%) <sup>3</sup> | 9.4         | 7.5   |
| Children under 5 years who are underweight (weight-for-age) (%) <sup>3</sup>        | 36          | 35.8  |

|   |      |      |      |      |
|---|------|------|------|------|
| Pregnant women aged 15-49 years who are anaemic (%) <sup>3</sup>  | 49.3 |      | 50.4 |      |
| Tuberculosis - annualized total case notification rate* <sup>5</sup>  | 86   |      | 100  |      |
| Hypertension among adults (15-49 years) - Blood pressure Slightly above normal (Systolic 140-159 mm of Hg and/or Diastolic 90-99 mm of Hg) (%) <sup>3</sup> | F    | M    | F    | M    |
|   | 7.1  | 11.7 | 6.7  | 10.4 |
| Blood Sugar Level among Adults (age 15-49 years) - high (>140 mg/dl) (%) <sup>3</sup>   | F    | M    | F    | M    |
|   | 5.0  | 5.9  | 5.8  | 8    |

↓ Arrow indicates state performance better than the national average

### TABLE 1 - Health Outcomes

**Source: Sample Registration Survey (SRS) 2018, Registrar General of India (RGI) Statistical Report (SRS) 2018, NFHS 4 (State Fact Sheets & State Reports)**

Maharashtra generally demonstrates better health outcomes compared to the national averages in terms of maternal and child health indicators such as MMR, IMR, under-five mortality rate, and neonatal mortality rate. However, there are areas of concern such as nutritional status (severely wasted and underweight children) where Maharashtra's rates are slightly higher than the national averages. Maharashtra's TB case notification rate is lower than the national average, indicating relatively better control or detection of TB cases. Hypertension and high blood sugar levels among adults are prevalent in both Maharashtra and India, with Maharashtra showing slightly lower rates compared to the national averages.

| <b>SERVICE DELIVERY</b>   |             |       |
|---|-------------|-------|
|   | MAHARASHTRA | INDIA |
| Proportion of institutional deliveries out of total reported deliveries (%)           | 99.4        | 94.5  |
| Deliveries conducted at Public Institutions out of total Institutional Deliveries (%) | 49          | 67.9  |
| Percentage of currently married women (15-49 years) who                               | 62.6        | 47.8  |

|  |      |      |
|--|------|------|
| have their need for family planning satisfied by any modern methods (%)                          |      |      |
| Total unmet need for Family Planning among currently married women (15-49 years) (%)             | 9.7  | 12.9 |
| Children aged 12-23 months fully immunized (BCG, measles, and 3 doses each of polio and DPT) (%) | 56.2 | 62   |
| Children with diarrhoea in the last 2 weeks who received oral rehydration salts (ORS) (%)        | 60.5 | 50.6 |

**TABLE 2 : Service Delivery**

**Source - NFHS 4 (State Fact Sheets & State Reports), HMIS 2019-20 (up to March)**

Proportion of institutional deliveries out of total reported deliveries: Maharashtra has a high rate of institutional deliveries, indicating that a significant portion of childbirths occur in healthcare facilities rather than at home. This is crucial for ensuring access to skilled attendance during childbirth, which can help reduce maternal and neonatal mortality. Deliveries conducted at Public Institutions out of total Institutional Deliveries: While nearly half of institutional deliveries occur in public institutions, the majority still happen in private facilities or other non-public settings. This suggests a need to strengthen public healthcare infrastructure to further increase access to institutional deliveries, especially for economically disadvantaged populations. Percentage of currently married women (15-49 years) who have their need for family planning satisfied by any modern methods: The data indicates that a significant proportion of currently married women in Maharashtra have their family planning needs satisfied by modern methods. This is crucial for promoting reproductive health and reducing the risk of unintended pregnancies.

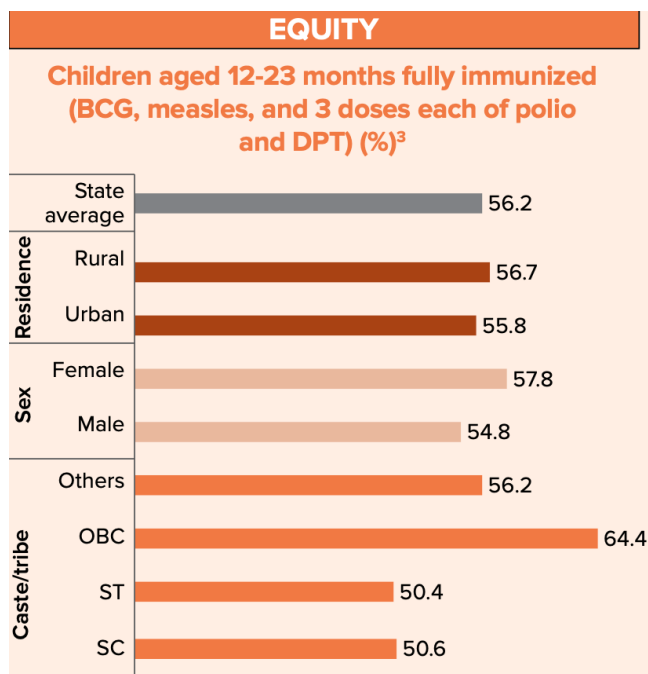
Total unmet need for Family Planning among currently married women (15-49 years): Despite the relatively high satisfaction with modern family planning methods, there is still a notable percentage of women with an unmet need for family planning. Tending to this hole is important for guaranteeing that ladies have get to to the contraception strategies they want, which can contribute to progressed maternal and child well-being results. Children matured 12-23 months fully immunized: The rate of children completely immunized in Maharashtra is moderately low,

indicating a hole in immunization scope. Completely immunizing children is vital for protecting them against preventable maladies and lessening childhood mortality and dismalness. Endeavors to strengthen immunization programs and increment mindfulness approximately the significance of vaccination are fundamental. Children with loose bowels in the final 2 weeks who gotten verbal rehydration salts (ORS): The information appears that a moderately higher rate of children with loose bowels in Maharashtra gotten ORS, which is a key intercession for overseeing parchedness due to diarrhea. In any case, there is still room for change in guaranteeing that all children with diarrhea receive suitable treatment, as the runs remains a driving cause of childhood mortality globally.

| <b>HEALTH DETERMINANTS</b>                            |             |       |
|---|-------------|-------|
|   | MAHARASHTRA | INDIA |
| Households with an improved water drinking source (%) | 91.5        | 89.9  |
| Households using improved sanitation (%)              | 51.9        | 48.4  |
| Women who consume alcohol - 15-49 years (%)           | 0.2         | 1.2   |
| Men who consume alcohol - 15-49 years (%)             | 20.5        | 29.2  |
| Women who use any kind of tobacco (%)                 | 5.8         | 6.8   |
| Men who use any kind of tobacco - 15-49 years         | 36.5        | 44.5  |
| Households using clean fuel for cooking               | 59.9        | 43.8  |

**TABLE 3 – Health Determinants.**

**Source - NFHS 4 (State Fact Sheets & State Reports), HMIS 2019-20 (up to March)**



**Figure 2 :Equity.**

**Source - NFHS 4 (State Fact Sheets & State Reports)**

In summary, while Maharashtra fares relatively well in terms of access to safe drinking water and clean fuel for cooking, there are still areas for improvement, such as increasing access to improved sanitation facilities and addressing high rates of alcohol and tobacco consumption, particularly among men. Promoting healthier behaviours and ensuring access to essential amenities are crucial for improving overall health outcomes in the state.

| <b>DEMOGRAPHY</b> |       |            |             |
|-------------------|-------|------------|-------------|
| Total Population  |       | Crore      | 11.2        |
|                   |       | Rural      | 54.77%      |
| SC/ST Population  |       | Urban      | 45.22%      |
|                   |       | SC (Crore) | 1.3 (11.8%) |
|                   |       | ST (Crore) | 1 (9.3%)    |
| Literacy Rate     | State | Female     | 75.87%      |

|   |       |        |        |
|---|-------|--------|--------|
|   |       | Total  | 82.34% |
|   | India | Female | 64.64% |
|   |       | Total  | 72.99% |
| Total Fertility Rate (TFR)              |       | State  | 1.7    |
|   |       | India  | 2.2    |
| Crude Birth Rate (CBR)                  |       |        | 15.6   |
| Projection (2021) of Elderly Population |       |        | 11.7%  |

**TABLE 4 - Demography.**

**Source - Registrar General of India (RGI) Statistical Report ( SRS) 2018 Census 2011 (for literacy rates-refer country/state specific census 2011 profile).**

In summary, Maharashtra has a large and diverse population with relatively high literacy rates, lower fertility rates compared to the national average, and a significant rural population. However, it also faces challenges related to the socio-economic status of marginalized communities and the aging population, which require targeted policies and interventions for inclusive growth and development. Maharashtra outperformed the national average on a number of critical parameters. Despite this remarkable performance, communicable, maternal, newborn, and nutrition-related disorders account for about 25% of the total disease burden, while Noncommunicable disorders (NCDs) make up 63%. The state falls under the higher-middle epidemiologic transitional level category (India State-Level Disease Burden 2017 report). Nearly 46% of the population lives in cities, while approximately 11% are old. The state began the rollout of Health and Wellness Centres (HWC) as part of the Ayushman Bharat-Health and Wellness Centres (AB-HWC) initiative by employing Ayurvedic practitioners as Community Health Officers (CHOs) at thirty Sub Health Centres (SHC). Maharashtra's early decision to hire Ayurveda practitioners was based on the assumption that they were well-suited (after a brief two-week training) to perform curative and promotional functions in primary health care, as well as the state's legal provision allowing Ayurveda practitioners to prescribe allopathic medicines. The state later changed its mind and chose nurses and Unani practitioners, as well as requiring all

CHO candidates to successfully complete the six-month Certificate Programme in Community Health (CPCH).

The state has the most Ayurveda practitioners posted at SHC-HWC, and it is unique in that some of its CHOs have prescription privileges, which may have an impact on treatment adherence and continuity of care. Maharashtra has a well-functioning ASHA project in rural regions, as well as a comprehensive Community Action in Health programme funded by the National Health Mission. The placing of CHOs from various backgrounds in its HWCs, along with a robust community-focused primary health care system, warrants further investigation. The state has already exceeded its HWC objective for FY 2020-21. The state prioritized HWC operationalization in its four Aspirational districts, with 690 establishments providing services. During the COVID-19 epidemic, CHOs supported outreach initiatives such as house-to-house surveys for screening, assistance for people in home isolation, and home-based essential care for the elderly and others with chronic illnesses. Primary health care team members also participated in the State's 'My Family, My Responsibility' (Maze Kutumb Mazi Jababdari) campaign, arranging care for pregnant women, people in need of emergency assistance, and patients with co-morbidities. The growing urbanization of the state necessitates identifying viable urban primary health care models to serve vulnerable and underprivileged populations.

## CHAPTER 3

### OBJECTIVES AND RESEARCH METHODOLOGY

#### 3.1 Research Aim

The research aims to undertake a comprehensive evaluation of two vital healthcare initiatives, namely the Sanjeevani Abhiyan Scheme for cancer diagnosis and the Jeevan Rekha Kaksh Scheme designed to prevent maternal mortality in the Latur District. Through this investigation, the study seeks to assess the effectiveness of these schemes, shedding light on their impact and efficiency in addressing critical healthcare challenges. Furthermore, the research endeavours to scrutinize the role played by Primary Health Care Centres in implementing these innovative programs, particularly focusing on the Jeevan Rekha Kaksh Scheme's contribution towards maternal mortality prevention and the Sanjeevani Abhiyan Scheme's efforts in cancer diagnosis. Additionally, the study aims to identify and analyze the challenges encountered by the District Health Department in the implementation of these schemes, providing valuable insights into the obstacles hindering their success.

#### 3.2 Objectives

The objectives of the research are as follows

- (a) To evaluate the effectiveness of the Sanjeevani Abhiyan Scheme for cancer diagnosis and the Jeevan Rekha Kaksh Scheme to prevent maternal mortality in the Latur District.
- (b) To examine the role of Primary Health Care Centres in implementing the innovative Jeevan Rekha Kaksh Scheme to prevent maternal mortality and Sanjeevani Abhiyan Scheme for cancer diagnosis.
- (c) What were the challenges faced by the District Health Department in implementing the Sanjeevani Abhiyan Scheme and the Jeevan Rekha Kaksh Scheme?
- (d) To provide suggestive measures to improve the effectiveness of public health care schemes in Latur.

### **3.3 Research Strategy / Design**

The study followed a mixed research strategy of Qualitative, and Quantitative research.

Under Qualitative Research. Semi-structured interviews with key stakeholders such as DHO, Nodal officers in charge of scheme, CHO's involved in these schemes, Administrators and interaction with patients were conducted to gather insights into the innovative practices. Under Quantitative Research, data was collected on key health indicators (Ex Patient outcomes, service utilization, cost-effectiveness) after the implementation of innovative practices in PHC Centres. Surveys were administered to a representative sample of patients to assess their satisfaction with the services and their perception of the impact of innovation.

#### **Research Questions:**

After carrying out the literature review and setting the objectives of the study following main questions need to be answered

- (a) Were the innovative schemes i.e. Sanjeevani Abhiyan and Jeevan Rekha Kaksh effective in improving the health care outcomes of people in Latur?
- (b) What were the major issues and challenges faced by the District Health Department in implementing the Public Health Care Schemes in Latur?
- (c) How can Public Health Care Schemes be improved?
- (d) Were the Public Health Centres effective in implementing innovative schemes like Sanjeevani Abhiyan and Jeevan Rekha Kaksh?
- (e) How can other districts learn from Latur's experience and replicate its success in providing quality healthcare services?

### **3.4 Limitations and Scope of Study**

The study is an attempt to analyze the effectiveness of Public Health Care schemes in the Latur district and to examine the role of Primary Health Care Centers and Sub-centers. Since the health care schemes are relatively new there may be limited data and research available on their implementation and outcome in Latur District. Assessing the long-term effectiveness of the

innovative schemes may be a constraint or limitation in the study.. Since the creative concepts were more than a year and a half old, and patient responses needed to be acquired, there was a time constraint when it came to performing thorough fieldwork or surveys and gathering primary data.

This research focuses solely on novel public health care programmes in Latur District, looking at the function of Primary Health Centres, the efficacy of the programmes, implementation barriers and difficulties, and recommendations for enhancing the programmes' performance. The private sector is not included in the study and is limited to the Public Health Care Sector only.

### **3.5 Methodology & Data Sources**

The research method employed was Qualitative, and Quantitative. Content and trend analysis was undertaken as part of the research methodology to analyze data collected and arrive at logical inferences. The data was collected from primary and secondary sources.

Primary data sources for the dissertation were :

(a) Interviews:

Interviews were conducted with healthcare providers, administrators, and patients at primary healthcare centres in Latur to gather their perspectives on innovative health services.

(b) Surveys or Questionnaires:

Designing and administering surveys to healthcare providers, administrators, and patients to collect quantitative data on their experiences and perceptions regarding innovative health services.

(c) Observations:

Spending time at primary health care centre and sub centre to observe the facilities available, infrastructure availability, facilities at Lab, interaction with OPD patients, CHO and other staff.

Secondary data was collected from :

- (a) Published Studies and Research Papers: Existing research and studies related to primary health care, innovative health services, or healthcare in Maharashtra.
- (b) Government Reports: Reports and data published by government health agencies or departments in Latur that provide statistics and information about healthcare facilities, services, and policies in the region.
- (c) Healthcare Records: Aggregate healthcare data or records from primary healthcare centers, available by collaboration with relevant authorities in Latur. This data will provide insights into patient demographics and service utilization.

## CHAPTER 4

### INNOVATIVE HEALTH SERVICES IN LATUR MAHARASTRA

#### 4.1 Demographic Overview of Latur

Latur, a district in the Indian state of Maharashtra, faces the dual problems of being drought-prone and heavily dependent on agriculture. Latur district's population is divided between urban and rural areas. According to the 2011 census, 74.53% of the Latur district's population lives in rural settlements. Latur district's total rural population is 1,829,216, with 949,707 males and 879,509 females. In rural Latur district, the sex ratio is 926 females to 1000 males. The child sex ratio in Latur district is 889 girls per 1000 boys. In rural areas, there are 238,335 children aged 0 to 6, with males accounting for 126,156 and females for 112,179. The child population comprises 13.28 % of total rural population of Latur district. Literacy rate in rural areas of Latur district is 75.11 % as per census data 2011. Gender wise, male and female literacy stood at 82.96 and 66.67 percent respectively. In total, 1,194,845 people were literate of which males and females were 683,249 and 511,596 respectively.

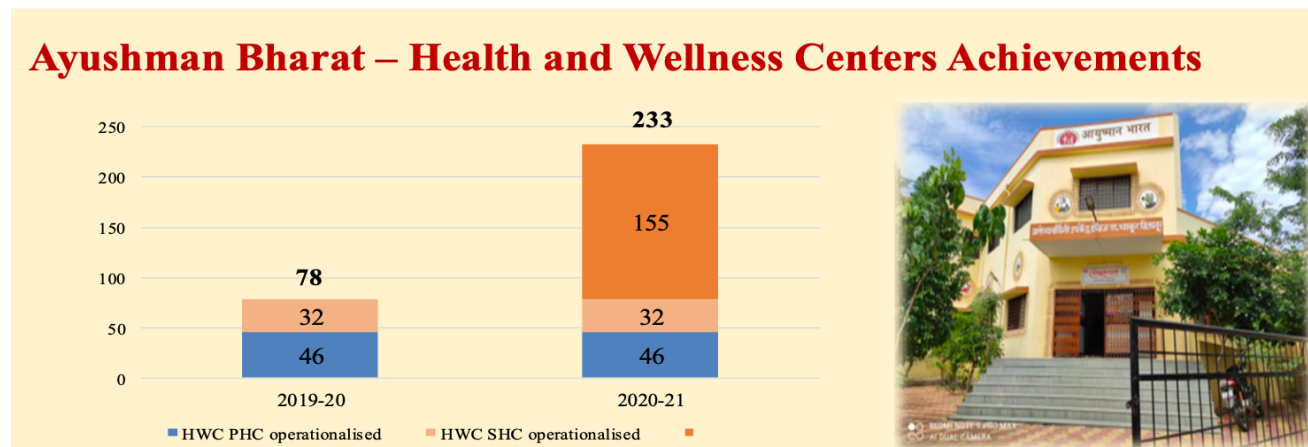
- (a) Latur district has stood first in NFWP (National Family Welfare Program) throughout 82-83, 94-95, 99-00, and 2004-05. Similarly, the district succeeded in the Marathwada region's NFWP from 2006 to 2007.
- (b) Effective Chikungunya Epidemic Control - Between 2004 and 2005, more than 500 villages in the Latur area were impacted by the Chikungunya epidemic. However, with intensive entomological surveillance, limited use of water reservoirs, and early diagnosis and treatment, the outbreak was effectively controlled.
- (c) Zero polio cases since 1997 - Due to the efficient implementation of the PPI (Pulse Polio Immunization Campaign), AFP surveillance, and routine immunization, there has been no documented case of poliomyelitis since 1997.
- (d) Good health services in 1993. Earthquake - A devastating earthquake on September 30, 1993, destroyed hundreds of houses and killed hundreds in the AUSA and Nilanga blocks. The Health Department provided excellent health care following the earthquake. Following the earthquake, there was no outbreak in the afflicted area. Medical officers

and health workers work tirelessly around the clock to provide chlorinated water, IEC, and surveillance of epidemic diseases.

- (e) Psychiatric and psychological services were provided to anyone experiencing such problems. Under the supervision of the Directorate of Health Services, all District level officers, Medical Officers, and health professionals worked tirelessly to provide medical services to earthquake victims.

Latur district in Maharashtra got the Prime Minister's Award for Excellence in Public Administration at the National Civil Services Day ceremony in New Delhi. The award was awarded to the district for health services rendered to over 50 lakh people through a vast network of primary health centers and sub-centres. The prize was given after evaluating medical stock, health infrastructure, including ambulances and camps, as well as innovative projects in Latur such as 'Sanjeevani Abhiyan' for cancer diagnosis and 'Jeevanrekha Kaksh' to prevent maternal mortality. Prime Minister Narendra Modi presented the award to the Latur district administration, praising public servants' contributions to nation-building and asserting that India's rapid progress would not have been possible without their active engagement. Latur has 233 'Arogyavardhni' (wellness) centres under the Centre's flagship Ayushman Bharat scheme and services offered include health check-ups of pregnant women, children, adolescent girls, treatment of infectious diseases, cancer, and diabetes as well as advice on leading a healthy lifestyle. The AB-HWC program has helped Latur provide services to all inhabitants in the Swasth neighborhood. HWC Facility Operationalization. The first phase of Ayushman Bharat was to convert all existing units into Health and Wellness Centers. By 2020-21, Latur district had successfully converted 46 PHCs and 187 Sub Centres into fully functional HWCs.

## 4.2 Health and Wellness Centres Achievements



**Figure 3 - Ayushman Bharat – Health & Wellness Centres achievements**

These 233 HWCs were made operational by the following mechanism:

- (a) 100% Branding
- (b) Manpower recruitment (118 MBBS and 187 BAMS Doctors)
- (c) Training and Capacity Building
- (d) Medicine availability for Comprehensive and Expanded range of services, including AYUSH medicines.
- (e) Diagnostics: 14 tests at Sub Centres and 63 tests at PHCs available
- (f) Tele-consultation Facility

Jan Arogya Samitis established for better community engagement: 10 meetings being held every year in each Centre. Comprehensive Primary Health Care through Health and Wellness Centers: The HWCs aim to provide 7 Comprehensive services, including free medicines and diagnostics to the citizens. The details are highlighted in table below.

| Facility                       | HWC PHCs      | HWC SCs             | Total |
|--------------------------------|---------------|---------------------|-------|
| Operationalized HWC facilities | 46            | 187                 | 233   |
| Manpower                       | 118 (MBBS MO) | 118 (BAMS/BSc Nurs) | 305   |
| Capacity building / Training   | 118 (MBBS MO) | 187 (BAMS/BSc Nurs) | 305   |
| Branding                       | 46            | 198                 | 244   |

|                                 |    |     |     |
|---------------------------------|----|-----|-----|
| Teleconsultation facility       | 46 | 187 | 233 |
| Diagnostics services            | 46 | 187 | 233 |
| Medicine availability           | 46 | 187 | 233 |
| Jan Arogya Samiti establishment | 46 | 187 | 233 |

**Table 5 - Operationalization of HWCs**

**Source – Latur Public Health Care Centre**

Footfall:

After operationalization of 233 HWCs, these facilities have served 44 lakh OPD patients. There has been an increase in OPD at Sub centres (From 1.5 lakh OPD in 2017-18 to 9.4 lakh in 2021-22), thus decongesting the higher referral centres and also bringing health solutions closer to the community.

Wellness activities:

Latur district conducted 27475 different wellness activities like Yoga sessions, Marathon, Cycling, Zumba, various health day celebration & Health talks, for bringing awareness about healthy lifestyles in the community. Yoga teachers have been appointed at all the HWC Facilities.

| <b>Indicators</b>   | <b>2020-21</b> | <b>2021-22</b> | <b>2022-23<br/>(Dec22)</b> | <b>Total</b> |
|---|----------------|----------------|----------------------------|--------------|
| <b>Footfall (Out Patient Care)</b>  | 1527056        | 1515913        | 1315009                    | 4357978      |
| <b>Wellness Activities</b><br>(yoga, sports, cycling, marathon, Zumba, health talk & health days) |                |                |                            | 27475        |
| <b>Tele Consultation Services</b>   | 57524          | 117852         | 143911                     | 319287       |

**Table 6 - Comprehensive Primary Health Care through Health and Wellness Centres.**

**Source - Latur Public Health Care Centre**

#### Tele-consultation Service:

Tele-consultation facility was started in April 2020 at PHCs (as hub & spoke) and Sub Health centers (as spokes) to provide Specialist Services with the help of HUB at Nanded District with an aim to provide expert consultation at village level, which ultimately reduces time & money of Common people (OOPE). We have provided Tele-consultation services to 319287 citizens as per their need at SHC & PHC Level through the platform of esanjeevani.in Tele-consultation.

#### Non-Communicable Diseases (NCD) Screening:

Screening of more than 7 Lakhs population of 30 years and above was done for Hypertension (BP) and Diabetes. Out of the screened population, 41517 hypertension cases and 20360 diabetes cases were identified and more than 95% of each were taken on treatment. Counselling of all citizens is done regarding exercise and diet to reduce the occurrence of NCDs.

| <b>NCD Diseases</b>                          | <b>Hypertension</b> | <b>Diabetes</b> |
|--|---------------------|-----------------|
| Cumulative 30+ population served by AB-HWCs  | 1020144             | 1020144         |
| 30+ population screened                      | 794966              | 730614          |
| % of target population screened              | 78                  | 72              |
| Diagnosed                                    | 415715              | 20360           |
| Under Treatment                              | 40552               | 20071           |
| % of under treatment cases against diagnosed | 97.67               | 98.58           |

**TABLE 7 - Non-communicable Diseases**

**Source - Latur Public Health Care Centre**

Some Special efforts to screen every 30 years and above population for NCD are highlighted below:

- (a) Village level NCD camps: To increase awareness and NCD screening, all HWC facilities conduct Village level NCD screening camps at all villages monthly.
- (b) Doorstep approach through home visits, well backed up with NCD team.
- (c) Opportunistic screening at HWC OPD: Screening of all 30 years and above population when they come at HWC facilities for any other reason/service and screening of their relatives and at their other contacts like during home visits.

(d) Dedicated/Focused weekly NCD day: At all HWC PHCs and SHCs dedicated weekly NCD day is conducted to fully screen and to diagnose and to take on treatment 30 years and above population.

Reproductive & Child Health (RCH) Services:

| <b>Indicators</b>                                       | <b>2020-21</b>                                | <b>2021-22</b> | <b>2022-23 (Dec22)</b> | <b>Total</b> |
|---|---|----------------|------------------------|--------------|
| <b>Reproductive &amp; Child Health</b>                  |   |                |                        |              |
| ANC Registration  | 32150   | 33383          | 33720                  | 24604        |
| ANC < 12 Weeks Reg.                                     | 29277   | 30399          | 31355                  | 23080        |
| Fully Protected ANC                                     | 29341   | 30782          | 30856                  | 24109        |
| Fully Immunized Children                                | 29845   | 30281          | 31114                  | 24918        |
| <b>Chronic Communicable Diseases- Tuberculosis</b>      | 2980  | 2105           | 2506                   | 3018         |
| <b>Communicable Disease Surveillance Through IDSP</b>   |   |                |                        |              |
| <b>Type of Surveillance</b>                             | <b>(2021-22) % of Average Reporting Units</b> |                |                        |              |
| 1. Syndromic Surveillance (S- Form Daily) for HWC-SC    | 100%  |                |                        |              |
| 2. Presumptive Surveillance (P- Form Daily) for HWC-PHC | 100%  |                |                        |              |
| 3. Laboratory Surveillance ( L- Form Daily) for HWC-PHC | 100%  |                |                        |              |

**TABLE 8 – Reproductive & Child Health and Communicable Diseases**

**Source – Latur Public Health Care Centre**

There has been a positive impact after operationalization of HWCs in the district on some qualitative RCH indicators like ANC registration, ANC Reg. <12 Weeks, fully protected pregnant women, fully immunized children and tuberculosis case notification.

The district has also started a call centre called JEEVAN-REKHA to call and monitor all pregnant women, with a special focus on High-risk Mothers. This has ensured that all mothers receive institutional help from HWCs. Well-furnished labour rooms are available at all HWCs for institutional deliveries.

### **4.3 Expanded Range of Services**

In Latur District, they rolled out Expanded range of services on 1st April 2022 at all operational HWC facilities and trained all medical staff for all expanded range of services.

(a) Eye care

All HWCs are equipped with vision charts, torch and medicines for primary eye care with basic training of MLHP. During this year identified 17069 suspected cataract cases and all are operated.

(b) ENT care

For Eye Care all HWCs are equipped with vision charts, torch and medicines for primary eye care with basic training of MLHP. During this year identified 17069 suspected cataract cases and all are operated.

(c) Care for mental, neurological and substance use disorders.

Under mental health programme regular IEC, house to house survey and weekly mental health clinic at all HWC facilities with flag name Manshakti Clinic. Essential medicines for Mental Health available at PHCs, the District has established a Centre for Autism, Cerebral Palsy and Multi-disability Centre named UMANG under PPP Mode alongwith District early Intervention Centre (DEIC), for treating patients with disabilities and neurological problems screened at HWCs.

(d) Palliative care, Elderly care

Under the flagship programme of Thodese Maibapsathi Pan (Something for the Elderly), screened 250380 elders. Arranged 522 health camps at every large village and given

elderly health care to 23207 elders and 4818 were given referral services. Medicines available for minor ailments, joint pain etc.

(e) Emergency and trauma care

Innovative/Best practices to strengthen the HWC services.

Timely recruitment of MLHP (CHO), Capacity building and incentives given regularly (Rs 3.15 Cr in 2021-22 Avg. PBI/CHO/Month - Rs. 14037 and Rs. 2.19 Cr in 2022-23). Support to HWCs through provision of IT services, diagnostics and drugs. Allocation of sufficient funds through DPC (19-20- 32.15Cr, 20-21- 27.83Cr, 21-22- 51.47Cr). Special efforts by reaching to unreached- visit of MBBS MOs to HWC SCs weekly on Thursday for diagnosis, to take on treatment NCD patients and to give follow up and counselling to known cases.

Provision of well-equipped 50 ambulances to all HWCs (PHC) through 15th Finance and through

- (a) Quality Care - Support in accreditation/ qualifying in NQAS and Kayakalp of HWCs. In 2021-22 64 HWCs SC were selected in kayakalp [max in the state] & 24 (50%) HWC PHCs achieved the award in kayakalp.
- (b) 5 HWC PHCs accredited in NQAS & 9 PHCs proceeded for national NQAS assessment.

#### **4.4 Success Story: Umang Centre for Autism, Cerebral Palsy & Multidisability**

Latur District established Maharashtra's First dedicated Autism and Cerebral Palsy Centre named UMANG at the District level in 2020. The initiative is a joint venture between Government and an NGO (leveraging private players to deliver health services), wherein different therapies are provided at minimal cost to patients. The Centre offers therapies like Occupational Therapy, Behaviour Therapy, Speech Therapy, Physiotherapy, Hydrotherapy under one roof with tests including BERA, EEG and OAE. The Centre also boasts of a State of the art SENSORY GARDEN, with differently abled friendly swings, Trampolines, sensory path etc which is used for sensory stimulation and remedial therapy. Specialized Neurological

consultations are available through specialist Child neurologists attached with the Centre. The patients and children from rural areas are screened for defects by RBSK teams, HWC staff and doctors and sent to the Centre for therapy and treatment. The current number of patients is as follows:

- (a) ASD (Autism Spectral disorder): 75+
- (b) ADHD (attention deficit hyperactivity disorder):148+
- (c) Intellectual Disability: 192+
- (d) Developmental Delay: 184+
- (e) Speech Delay: 134+
- (f) Epilepsy: 122+
- (g) Cerebral Palsy :58+
- (h) Down Syndrome: 33+
- (i) Others: 250+

The sessions are offered at a much lower cost as compared to Metro Cities where such facilities are available. It has resulted in savings in out-of-pocket expenditure (around Rs 16 crore) of rural population who are now able to avail advanced therapies at lower costs in the District. Below is a comparative statement.

| Therapies            | Sessions taken till date | Difference amount between UMANG & Mumbai, Pune | Total Savings by Patients |
|----------------------|--------------------------|--|---------------------------|
| Occupational Therapy | 55000+                   | 1700   | Rs.9,35,00000             |
| Physiotherapy        | 22400+                   | 600  | Rs. 1,34,40000            |
| Speech Therapy       | 31000+                   | 800  | Rs. 2,48,00000            |
| Behaviour Therapy    | 29900+                   | 950  | Rs. 2,84,05000            |
|                      |                          | Total Amount benefitted through UMANG          | Rs.16,01,45000            |

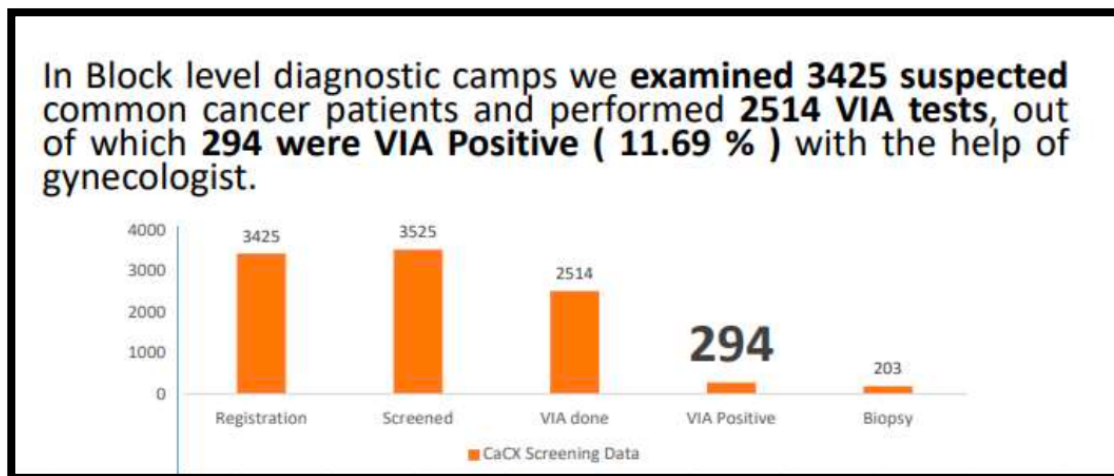
**Figure 4 - Details of various types of treatments**

## 4.5 Innovative Schemes in Latur

On the occasion of Marathwada Mukti Sangram Year 2022-23, the District Administration planned to reach out to the unreachable through a house-to-house survey. Cancer screening is an important feature of noncommunicable disease screening, however due to different beliefs and cultural concerns, the percentage of women who were tested, particularly for Ca Cx and breast, was minimal.

Latur District initiated a cancer screening drive for women, with a focus on screening patients for cervical and breast cancer. Innovation - Sanjeevani Abhiyan (Cancer-Free, Prosperous Life) This effort positively impacted the HWC's performance. 342000 women over the age of 30 were contacted through home visits, with 3958 possible patients identified. 3425 pt were mobilized with free transportation, lunch, and free investigation at selected HWCs center and Block level RH SDH with financial support from local Panchayat Raj institute. It Included the following:

- (a) Training of ASHA, ANM and CHOs
- (b) House to House survey by ASHAs
- (c) Identification of probable suspects with symptoms and their checking by CHOS at Sub Centres



**Figure 5 – Cancer camp diagnoses**

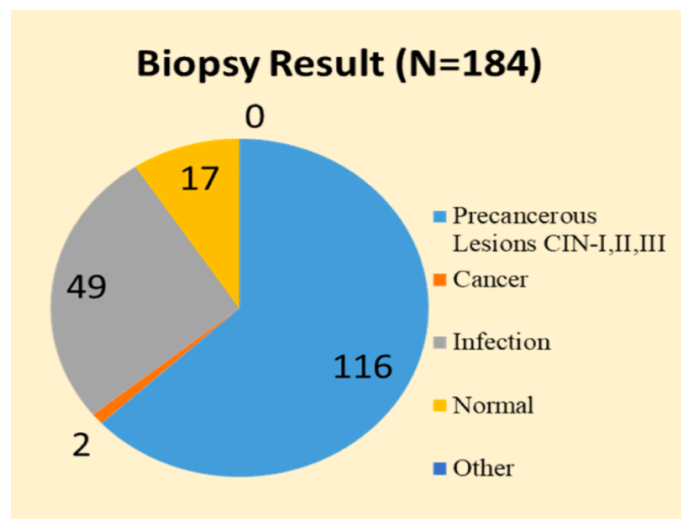
**Source – Latur district health office**

All Suspects were then examined by Gynaecologists/ Specialists at PHCs/ RH/ SDH including taking of Biopsies and samples. A total of 3.42 lakh women screened and 3425 suspects found, which were examined by Doctors. The initiative was mobilized in coordination with Panchayat Raj Institutions and Health Department.

| PLACE OF CAMP              | TOTAL |
|----------------------------|-------|
| Total Registration         | 3425  |
| Screening                  | 3425  |
| VIA Test                   | 2514  |
| VIA Positive               | 294   |
| Ca Breast Suspect Examined | 412   |
| Ca Breast Suspect          | 79    |
| Biopsy                     | 203   |
| Pap Smear                  | 141   |
| Prolapse / Uterine Surgery | 89    |
| HIV Positive               | 6     |

**TABLE 9 - Sanjeevani Abhiyan Cancer Screening data**

Source – Latur district health office



**Figure 6 - Biopsy Results of Suspected Cancer Patients**

Jeevanrekha Call Centre – To address Maternal Mortality Latur District established a dedicated call Centre to track High Risk Pregnant women and Post Natal women to help them

## CHAPTER 5

### DATA ANALYSIS OF LATUR HEALTH SCHEMES

#### 5.1 Data from Innovative Health Schemes of Latur

This analysis delves into the indicators of HWCs from 2020 to 2023, shedding light on footfall, wellness activities, teleconsultation services, and the management of non-communicable diseases (NCDs) like hypertension and diabetes.

(i) Footfall (Out-Patient Care):

The data in Table no 2 illustrates the trend of patient footfall across the years 2020-2023. Notably, there's a consistent decrease in footfall from 2020 to 2022, with a subsequent increase in 2023. The cumulative footfall indicates a substantial number of individuals accessing primary healthcare services through HWCs over the mentioned period.

(ii) Wellness Activities:

While no data is available for wellness activities in the earlier years, 2023 demonstrates engagement in various wellness initiatives like yoga, sports, cycling, marathons, Zumba, health talks, and health days. These activities signify a proactive approach towards promoting holistic health and well-being within the community.

(iii) Teleconsultation Services:

The data exhibits a progressive increase in teleconsultation services over the years, indicating a growing acceptance and utilization of remote healthcare delivery methods. Teleconsultation serves as a valuable tool in enhancing healthcare accessibility, especially in remote or underserved areas.

#### Management of NCDs

(a) Cumulative 30+ Population Served by AB-HWCs: The data reveals the cumulative population served by HWCs, focusing on individuals aged 30 and above.

- (b) 30+ Population Screened: Screening efforts are evident, with a significant portion of the target population being screened for NCDs such as hypertension and diabetes.
- (c) Percentage of Target Population Screened: The percentage of the target population screened reflects the effectiveness of outreach and screening programs.
- (d) Diagnosed Cases: The number of individuals diagnosed with hypertension and diabetes underscores the burden of NCDs within the community.
- (e) Under Treatment Cases: A portion of diagnosed cases is under treatment, indicating the initiation of management and care interventions.
- (f) Percentage of Under Treatment Cases against Diagnosed: This metric provides insights into the proportion of diagnosed cases receiving appropriate treatment, highlighting the effectiveness of disease management strategies.

The data analysis underscores the multifaceted role of HWCs in delivering comprehensive primary healthcare services. Despite fluctuations in certain indicators, overall trends indicate an active engagement in preventive, curative, and promotive healthcare activities. Efforts towards expanding teleconsultation services, promoting wellness activities, and managing NCDs are evident, reflecting a concerted approach towards improving health outcomes and enhancing community well-being. Moving forward, continuous monitoring and evaluation of these indicators will be crucial in refining healthcare strategies and ensuring equitable access to quality primary healthcare services.

## **5.2 Analysis of Reproductive & Child Health and Chronic Communicable Diseases Indicators**

Reproductive and child health (RCH) is a vital component of primary healthcare systems, encompassing services aimed at ensuring the well-being of women and children. Additionally, the management of chronic communicable diseases, such as tuberculosis (TB), plays a crucial role in disease prevention and control. This analysis examines key indicators related to RCH and TB management from 2019 to 2023, shedding light on trends and implications for healthcare delivery.

### **5.2.1 Reproductive & Child Health (RCH) Indicators**

- (a) ANC Registration: The data illustrates the number of pregnant women accessing antenatal care (ANC) services, indicating the utilization of maternal healthcare services. There's a slight fluctuation in ANC registrations over the years, with a notable decrease in 2022-23 compared to previous years. This trend may warrant further investigation into potential barriers to ANC utilization during this period.
- (b) ANC <12 Weeks Registration: ANC registration within the first trimester is crucial for optimal pregnancy outcomes. The data reflects a similar trend to overall ANC registrations, with a decrease observed in 2022-23. Efforts to promote early ANC initiation may need reinforcement to ensure timely access to essential prenatal care services.
- (c) Fully Protected ANC: Fully protected ANC signifies the completion of recommended antenatal care interventions, including screenings, vaccinations, and health education. While there's a slight variation in fully protected ANC over the years, the overall numbers remain substantial, indicating a commitment to delivering comprehensive maternal healthcare services.
- (d) Fully Immunized Children: Immunization is paramount in safeguarding children against vaccine-preventable diseases. The data demonstrates consistent efforts in ensuring high immunization coverage rates. Despite minor fluctuations, the number of fully immunized children remains significant, reflecting effective vaccination programs and outreach efforts.

### **5.2.2 Chronic Communicable Diseases - Tuberculosis (TB)**

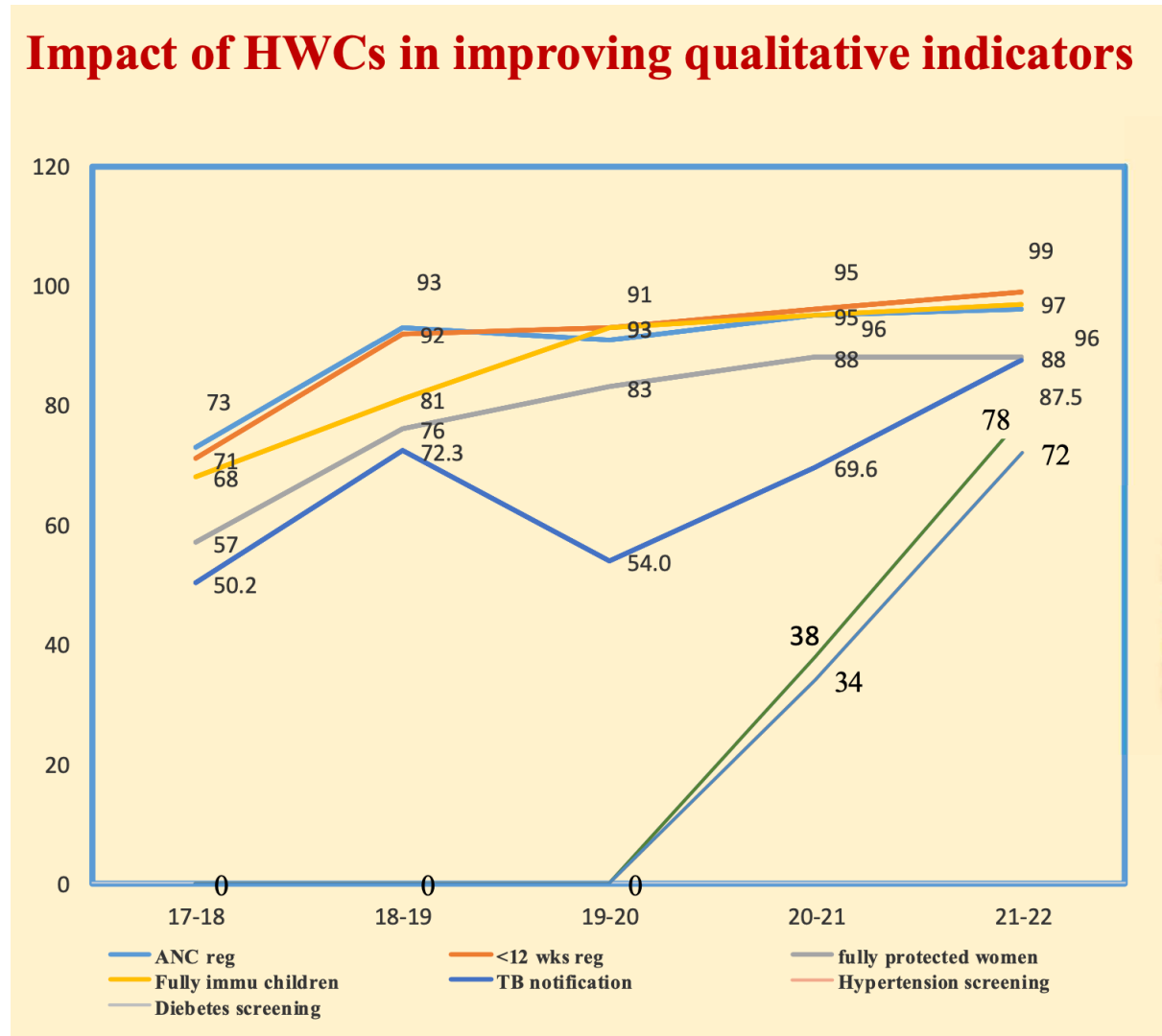
TB remains a significant public health concern, requiring robust surveillance and management strategies. The data indicates fluctuations in TB cases over the years, with a notable increase in 2022-23 compared to the preceding year. This increase underscores the importance of

sustained efforts in TB prevention, diagnosis, and treatment. The analysis of RCH and TB indicators provides insights into the performance of healthcare services in addressing maternal and child health needs, as well as the management of chronic communicable diseases. While certain indicators exhibit fluctuations, overall trends highlight ongoing efforts to promote maternal and child health, ensure immunization coverage, and combat TB. Continuous monitoring, targeted interventions, and community engagement will be essential in sustaining and improving health outcomes in these critical areas. Based on the data provided, it appears that Latur District in Maharashtra State has achieved full coverage in all three types of surveillance under the Integrated Disease Surveillance Program (IDSP) during the period of 2021-22. Let's analyze each type of surveillance:

**Syndromic Surveillance (S-Form Daily) for HWC-SC:** This type of surveillance involves monitoring the signs and symptoms (syndromes) of diseases in the community. Achieving 100% reporting units indicates that all relevant healthcare facilities (HWC-SC) in Latur District are consistently reporting syndromic data on a daily basis. This is crucial for early detection and response to outbreaks or unusual disease patterns. **Presumptive Surveillance (P-Form Daily) for HWC-PHC:** Presumptive surveillance involves identifying and reporting cases based on clinical suspicion, without waiting for laboratory confirmation. Similar to syndromic surveillance, achieving 100% coverage indicates that all primary healthcare centers (HWC-PHC) in Latur District are actively participating in this surveillance, which aids in timely intervention and control measures.

**Laboratory Surveillance (L-Form Daily) for HWC-PHC:** Laboratory surveillance focuses on the confirmation of suspected cases through diagnostic tests. Again, Latur District has achieved full coverage, indicating that all primary healthcare centers (HWC-PHC) are regularly reporting laboratory-confirmed cases. This ensures accuracy in disease diagnosis and helps in understanding the epidemiology of diseases in the region. In summary, Latur District's high rankings in all three types of surveillance indicate a robust disease surveillance system, which is essential for effective public health response, outbreak detection, and control. This data suggests that the district's healthcare infrastructure and surveillance mechanisms are well-functioning and proactive in monitoring and managing communicable diseases.

### 5.3 Impact of HWCS in Improving Qualitative Indicators



**Figure 7 - Impact of HWCs in improving qualitative indicators.**

**Source – Latur health district office**

The data provided seems to represent various qualitative indicators related to healthcare services, likely influenced by the establishment or operation of Health and Wellness Centers (HWCs). Analysis of each indicator is as follows:

ANC (Antenatal Care) Registration <12 weeks: This indicator measures the percentage of pregnant women who register for antenatal care within the first trimester of pregnancy. The data shows improvement over the years, reaching 99% in 2021-22. Early ANC registration is crucial

for ensuring timely prenatal care and monitoring of maternal and fetal health, which can lead to better pregnancy outcomes.

**Fully Protected Women:** This likely refers to the percentage of pregnant women who receive complete antenatal care services, including tetanus toxoid vaccination, iron and folic acid supplementation, and other interventions recommended by WHO. The data shows a consistent high performance, with values ranging from 93% to 97% over the years, indicating successful delivery of comprehensive antenatal care services.

**Fully Immune Children:** This indicator measures the percentage of children who have received the complete schedule of immunizations recommended by national vaccination programs. The data indicates a high level of coverage, with values consistently above 95% over the years, suggesting effective immunization services, possibly facilitated by HWCs.

**TB (Tuberculosis) Notification:** This indicator reflects the percentage of TB cases notified among the total estimated cases in the population. The data shows improvement over the years, with values increasing from 50.2% to 87.5%, indicating enhanced case detection and reporting, which is crucial for TB control efforts.

**Hypertension Screening:** This measures the percentage of individuals screened for hypertension within a specified period. The data shows a gradual improvement, with values increasing from 38% to 72% over the years, suggesting enhanced screening services, possibly facilitated by HWCs.

**Diabetes Screening:** Similar to hypertension screening, this indicator measures the percentage of individuals screened for diabetes. The data shows improvement, with values increasing from 0% to 20% over the years, though still relatively low, indicating a potential area for further focus and improvement in healthcare services.

In summary, the data suggests that the establishment or operation of Health and Wellness Centers (HWCs) may have contributed to improvements in various qualitative indicators related to maternal and child health, infectious disease control (such as TB), and non-communicable disease screening (hypertension and diabetes). These improvements reflect enhanced access to healthcare services, increased awareness, and possibly more effective outreach and service

delivery strategies implemented through HWCs. However, there may still be room for further improvement in certain areas, such as diabetes screening, to ensure comprehensive healthcare coverage and better health outcomes for the population.

| <b>Pradhan Mantri Surakshit Matrutv Abhiyan (PMSMA) upto Jan 23</b>    |             |
|--|-------------|
| Indicator  | Achievement |
| Total Number of <b>Pregnant Women Received Antenatal care</b> in PMSMA | 20589       |
| ANC with <b>severe Anaemia Diagnosed &amp; Treated</b>                 | 594         |
| ANC with <b>PIH (High Blood Pressure) Diagnosed &amp; Treated</b>      | 140         |
| ANC with <b>Diabetes Diagnosed &amp; Treated</b>                       | 116         |
| ANC with <b>Hypothyroid Diagnosed &amp; Treated</b>                    | 12          |

**Table 10 - Pradhan Mantri Surakshit Matrutv Abhiyan.**

**Source: District Health Department Records.**

Total Number of Pregnant Women Received Antenatal Care in PMSMA: This indicator represents the total number of pregnant women who received antenatal care through the PMSMA program. In this case, 20,589 pregnant women have received antenatal care services under PMSMA. This suggests that the program has been successful in reaching a significant number of pregnant women and providing them with essential antenatal healthcare services.

ANC with Severe Anemia Diagnosed & Treated: This indicator measures the number of pregnant women diagnosed with severe anemia during antenatal care under PMSMA and subsequently treated. Treating severe anemia in pregnant women is crucial as it can prevent adverse outcomes for both the mother and the baby. In this case, 594 pregnant women were diagnosed and treated for severe anemia, indicating that the program is effectively addressing this issue among pregnant women who access its services.

ANC with PIH (High Blood Pressure) Diagnosed & Treated: This indicator represents the number of pregnant women diagnosed with pregnancy-induced hypertension (PIH) during

antenatal care under PMSMA and subsequently treated. PIH is a significant risk factor during pregnancy and timely diagnosis and management are crucial for preventing complications. Here, 140 pregnant women were diagnosed and treated for PIH, indicating the program's effectiveness in addressing this condition among pregnant women.

ANC with Diabetes Diagnosed & Treated: This indicator measures the number of pregnant women diagnosed with diabetes during antenatal care under PMSMA and subsequently treated. Diabetes during pregnancy can increase the risk of complications for both the mother and the baby, so early detection and management are essential. In this case, 116 pregnant women were diagnosed and treated for diabetes, showing the program's efforts in addressing this condition among pregnant women.

ANC with Hypothyroid Diagnosed & Treated: This indicator represents the number of pregnant women diagnosed with hypothyroidism during antenatal care under PMSMA and subsequently treated. Hypothyroidism can have adverse effects on pregnancy outcomes if left untreated, so timely diagnosis and management are important. Here, 12 pregnant women were diagnosed and treated for hypothyroidism, indicating the program's focus on addressing various health conditions during pregnancy.

Overall, the data suggests that the Pradhan Mantri Surakshit Matrutva Abhiyan (PMSMA) has been successful in reaching a significant number of pregnant women and providing them with essential antenatal care services, including the diagnosis and treatment of various health conditions such as severe anemia, pregnancy-induced hypertension, diabetes, and hypothyroidism. These efforts are crucial for promoting safe pregnancies and improving maternal and child health outcomes.

#### **5.4 The Sanjeevani Abhiyan Initiative**

Focusing on promoting a cancer-free life for women, particularly targeting cervical cancer (Ca Cx) and breast cancer screening, appears to have implemented several innovative strategies to overcome barriers such as myths and cultural issues. Analysis of the data is highlighted below:

3,42,000 women above 30 years were contacted through home visits, indicating a broad outreach effort to engage the target population. The initiative's proactive approach of conducting home visits suggests a commitment to reaching women who may not otherwise access healthcare services due to various barriers.

Identification of suspected patients: Out of the contacted women, 3,958 suspected patients were identified, indicating successful screening and detection efforts. The identification of suspected patients is crucial for early diagnosis and intervention, especially in the case of cancer where early detection significantly improves treatment outcomes.

Mobilization and Support: 3,425 suspected patients were mobilized to undergo further evaluation and testing at selected Health and Wellness Centers (HWCs) and higher-level healthcare facilities. The provision of free transport, food, and investigations demonstrates an understanding of the barriers faced by patients and aims to address them comprehensively. Financial support from local Panchayat Raj institutions further enhances accessibility by alleviating financial burdens associated with healthcare seeking. Integration with Healthcare Infrastructure: The initiative leveraged existing healthcare infrastructure, including HWCs, Block-level Rural Hospitals (RH), and Sub-District Hospitals (SDH), for screening and diagnostic services. Integration with local healthcare facilities strengthens the sustainability and scalability of the program, ensuring continued access to services beyond the duration of the initiative.

## **5.5 Community Engagement and Awareness**

The initiative likely involved Information, Education, and Communication (IEC) activities to raise awareness about cancer screening, debunk myths, and encourage women to participate in screening programs. Training activities may have been conducted to equip healthcare workers with the necessary skills and knowledge to effectively deliver screening services and engage with the community. In summary, the Sanjeevani Abhiyan initiative demonstrates a comprehensive approach to address barriers to cancer screening among women, including proactive outreach, mobilization support, leveraging existing healthcare infrastructure, and community engagement. The initiative's success in identifying suspected patients and facilitating

their access to diagnostic services highlights its effectiveness in promoting early detection and improving outcomes for women at risk of cancer.

## **5.6 Survey Analysis**

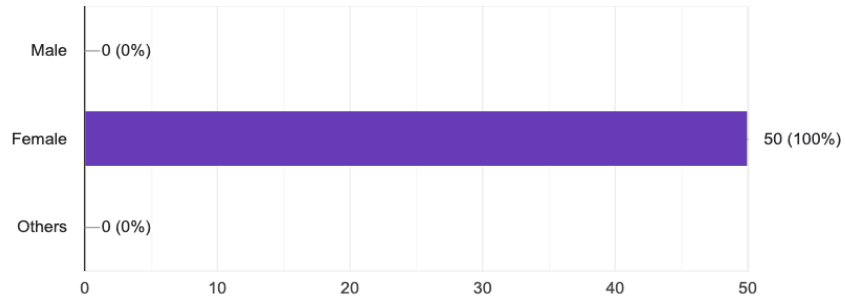
Interaction with CHC staff and OPD patients at these PHCs and SHC was carried out. Since the innovative schemes of Sanjeevani Abhiyan and Jeevan Rekha Kaksh were carried out more than one and half year back it was difficult to meet those patients. However, from the data available at these two Centres the patients involved in these schemes were contacted and feedback was obtained through Google form online survey. The sample size was restricted to 50 for both schemes due to time constraints and also since the schemes were more than one and half year old. The feedback summary was received from 50 patients who participated in the Sanjeevani Abhiyan Scheme & Jeevan Rekha Kaksh through an online survey via Google Forms which are highlighted in the next page.

# Survey for Sanjeevani Abhiyan Scheme for Reducing Maternal Mortality

What is your gender

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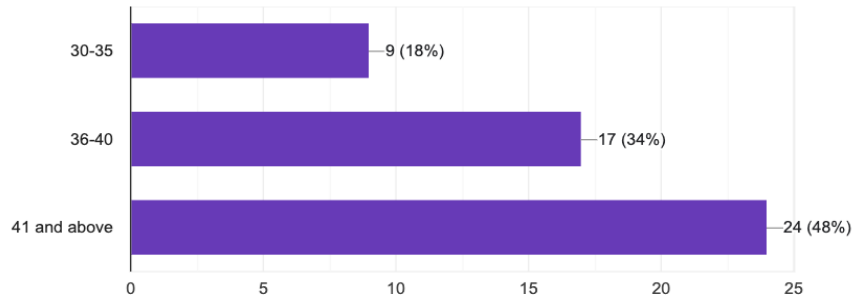
50 responses



What age bracket do you fall in?

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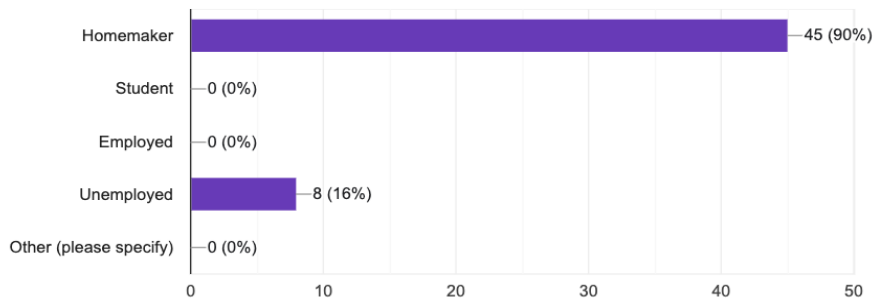
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What is your occupation?

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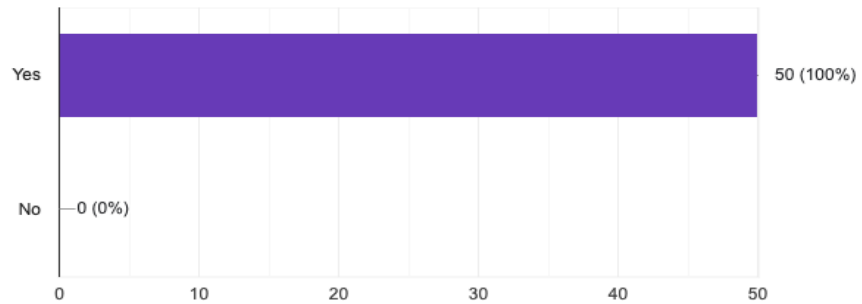
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Are you aware of the Sanjivani Abhiyan Scheme for cancer diagnosis?

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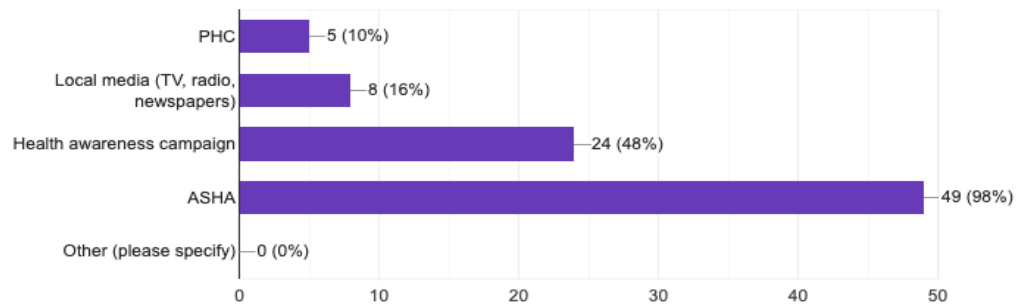
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If yes, how did you become aware of the Sanjivani Abhiyan Scheme? (Select all that apply)

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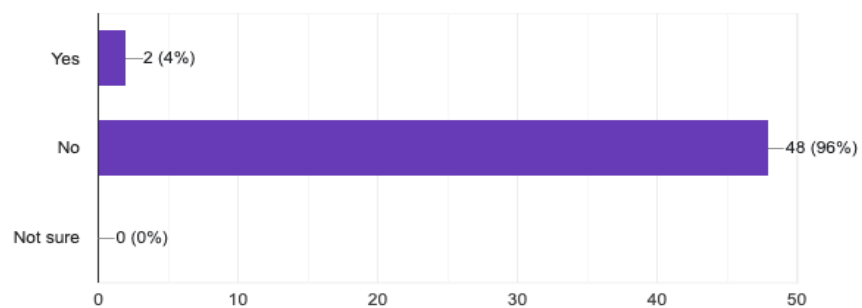
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Have you or someone you know utilized the Sanjivani Abhiyan Scheme for cancer diagnosis?

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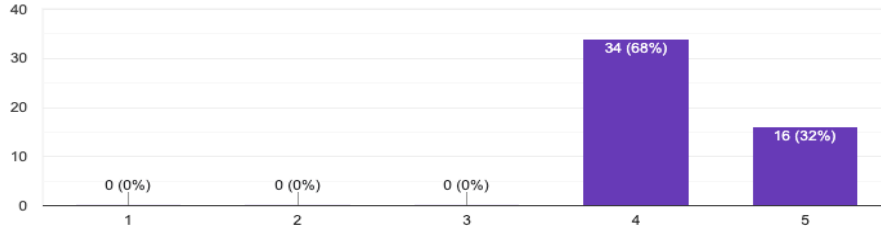
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On a scale of 1 to 5, how satisfied are you with the Sanjivani Abhiyan Scheme? (1 being very dissatisfied, 5 being very satisfied)

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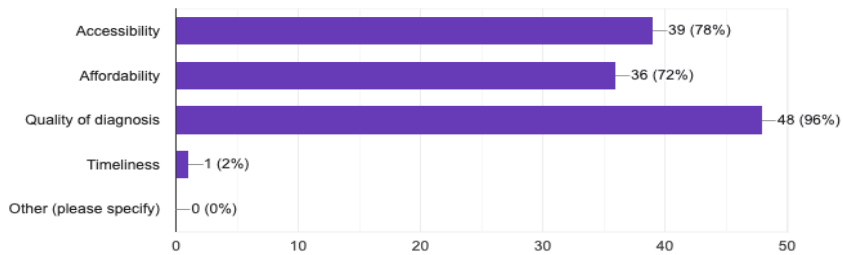
50 responses



What aspects of the Sanjivani Abhiyan Scheme do you think are effective? (Select all that apply)

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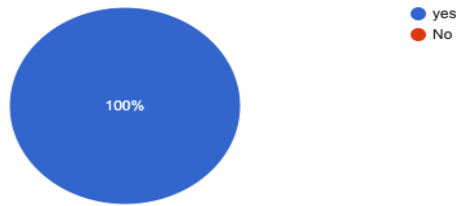
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Did the Doctors did a proper check up and explained to you in detail regarding the problem and treatment required?

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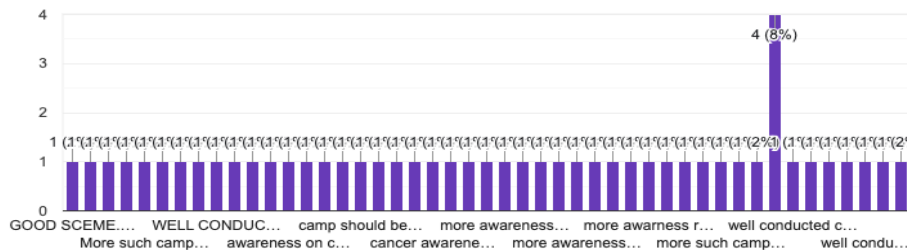
50 responses



Kind suggest measures to improve Sanjivani Abhiyan Scheme

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50 responses



Survey  
Jeevan

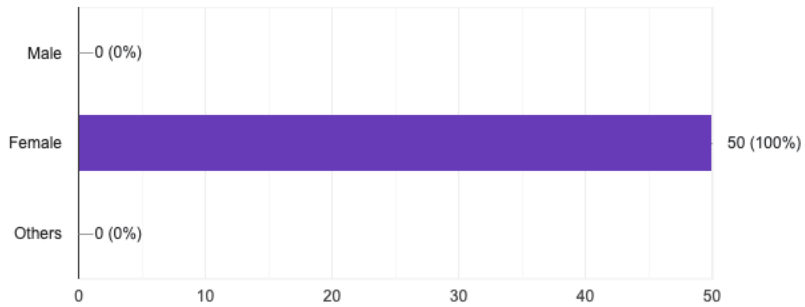
for  
Rekha

# Kaksh Scheme for Reducing Maternal Mortality

What is your gender

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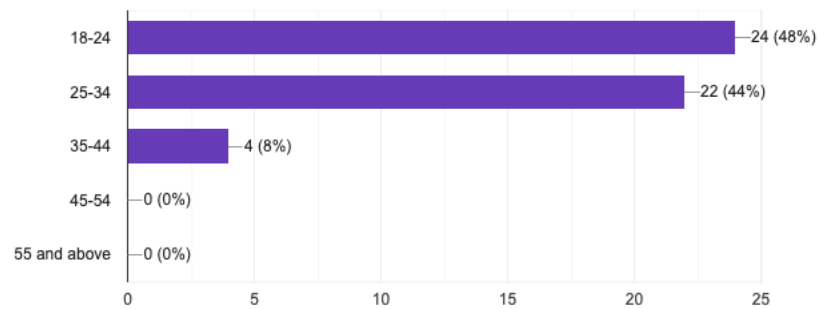
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What age bracket do you fall in?

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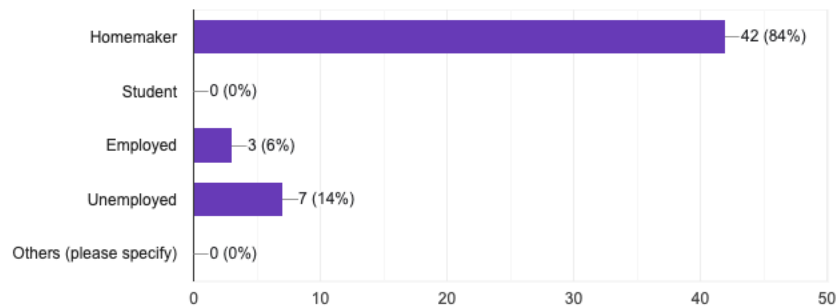
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What is your occupation?

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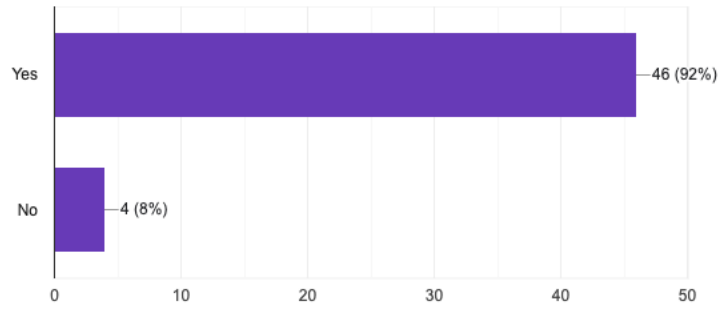
50 responses



Are you aware of the Jeevan Rekha Scheme to prevent maternal mortality?

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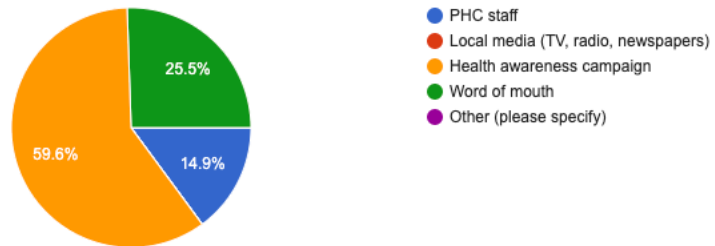
50 responses



If yes, how did you become aware of the Jeevan Rekha Scheme? (Select all that apply)

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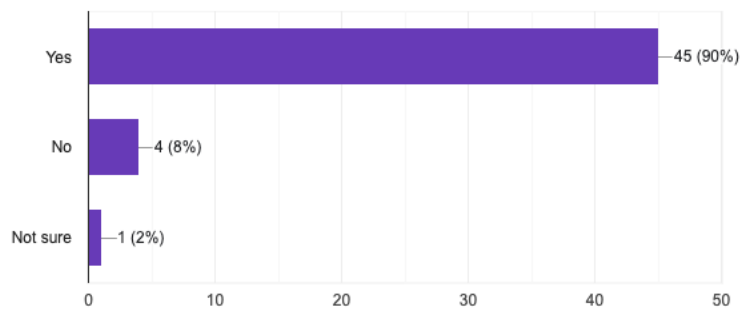
47 responses



Have you or someone you know utilized the Jeevan Rekha Scheme for maternal healthcare?

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50 responses



If yes, please share your experience with the scheme. (Open-ended)

50 responses

good experience

Due to this scheme we improve our health

well conducted in our locality by CHC and staff, they explained in detail about maternal mortality.

well organized and well explained.

The Lady doctor at center explained to me in detail that, benefitted from interaction with other ladies.

The doctor and Asha explained to me the precautions to be taken,

well-conducted scheme, checkups were done in our society.

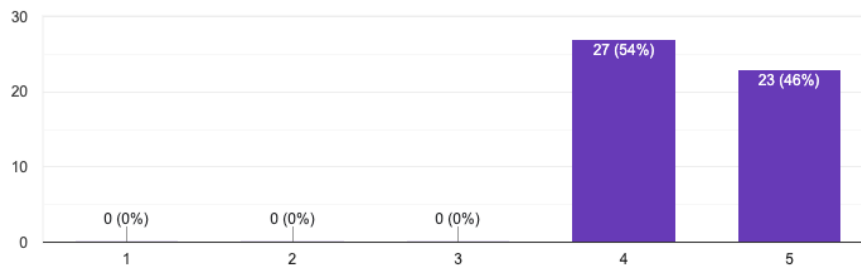
CHO and staff conducted campaign well, all arrangements were done very well.

well conducted, with doctors available.

On a scale of 1 to 5, how satisfied are you with the Jeevan Rekha Scheme? (1 being very dissatisfied, 5 being very satisfied)

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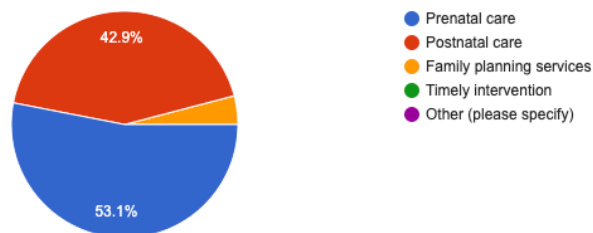
50 responses



What aspects of the Jeevan Rekha Scheme do you think are effective? (Select all that apply)

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49 responses



Are there any challenges or improvements you would suggest for the Jeevan Rekha Scheme?  
(Open-ended)

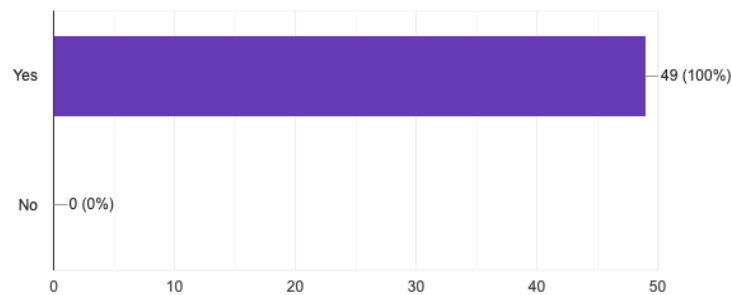
49 responses

- regular camp needs to be conducted.
- regular campaigns, waiting period is more.
- waiting period to be reduced.
- regular campaigns be conducted to ensure max population.
- large crowd available so it took time for check up.
- regular campaign needs to be done.
- should be conducted on weekends.
- regular campaign required.
- long waiting period, large crowd.

Were you satisfied with the facilities at PHC?

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49 responses



The feedback reveals that 48% of lady patients were of age bracket 41 & above, 34% were of age 36-40 and 18% were of age group 30-35. Maximum patients were homemakers (90%). Maximum patients informed that they became aware through ASHA, Health awareness campaign. 68% said that they were very satisfied and 68% were satisfied. The aspects of scheme which patients brought out on effectiveness were accessibility, affordability and quality of diagnosis. 100% were satisfied with the doctor's checkup. On measures to improve the patients informed that awareness is low, more such schemes need to be carried out and they praised

ASHA workers who convinced them to come for diagnosis. The feedback received reveals that the camps were very well conducted as more number of women approached for checkups and initial phobia hesitancy was reduced. The District health Department efforts paid off by timely recruitment of Doctors, Conduct of Training to all involved, Supply of medicines/drugs, infrastructure set up at wellness centres etc. Community involvement, local support of political leaders also helped in successful conduct of the of age bracket 18-44 responded. Patients who participated in Jeevan Rekha Kaksh scheme were of age bracket 18-44yrs. Maximum were home makers and 92% were aware of the scheme through health awareness campaigns, word of mouth, and PHC Staff. The patients revealed that camps were well conducted with availability of Gynecologist and lady doctors. 46% were highly satisfied and 54% were satisfied. Prenatal and Postnatal care was effective as per feedback of patients. 100% patients were satisfied with the facilities of PHC's.

## CHAPTER 6

### FINDINGS

A visit to Latur district was undertaken from 22nd Jan 24 to 24 Jan 24 and an interaction visit was carried out with District health officer Dr. Vadgave, Assistant District Health Officer Dr Bharure, Nodal Officer for Innovative Health schemes Dr Archana, and District coordinator Dr. Sonali. They provided a detailed briefing on the innovative health schemes.

Dr Vadgave, DHO Latur in his interview informed that 64 HWCs SC from Latur District were selected in kayakalp programme [max in the state] & 24 (50%) HWC PHCs achieved the award in kayakalp. 5 HWC PHCs were accredited in NQAS & 9 PHCs proceeded for national NQAS assessment. This motivated them to put maximum effort in reaching to the rural population. Maternal mortality deaths were high hence they decided to continue their efforts to reduce it by opening the Jeevan Rekha Call Centre. Also, no cancer diagnosis camp was conducted earlier. People were not coming forward/ willing to cancer diagnosis from the rural population. Hence they launched these innovative schemes. Asha went home and met suspected ladies. 90% ladies came forward, myth, fear was reduced. Also, via testing was new to CHO, hands-on training was given. Focus was on Quality in infrastructure, records, training and Quantity. Intensive efforts by all means was planned including the involvement of political people. Along with regular government programmes innovative programmes were launched. He informed that in Wellness programme they are still struggling. Apart from Yoga, Zumba several activities can be undertaken, and they are working on aspects like behavioral change activities, what to eat, how to live, what addictions are not to be done, what can be done for mental health improvement etc. Their focus is now on what is left out, how to cover the gaps, and how to further improve further. They also plan to cover about 100 odd small villages on the outskirts of District in future. They are also planning to empower Gram Panchayats to procure medicine whenever a shortage exists so that uninterrupted medicines are available at the Health and Wellness centres and Sub centres.

The interview was carried out with nodal officer for Sanjvani Abhiyan Scheme Dr Archana. She explained in detail about the scheme. Since Cancer diagnosis was carried out the first time they conducted a meeting involving Doctors, and Gynecologist who prepared a Questionnaire of 10 to 15 questions for Asha Workers to identify suspected patients. ASHA workers were called and a

five day workshop was conducted along with training for CHOs. After a door-to-door survey by ASHA, suspects were identified and screening was conducted by CHOs and second screening by MOs. 90% of women came for screening. All Suspects were then examined by Gynecologists/ Specialists at PHCs/ RH/ SDH including taking of Biopsies and samples. A total of 3.42 lakh women were screened and 3425 suspects found, which were examined by Doctors. The initiative was mobilized in coordination with Panchayat Raj Institutions and Health Department. 79 patients were diagnosed with 02 clear cut cases of cancer.

A visit was also undertaken to the Health and Wellness Centre at Pakarsangvi village about 20 kms on outskirts of Latur District and to Health and Wellness subcentre at village Javla about 24 kms from Latur District. Some photographs of the visit are shown below and more are placed at Page no 101.



**Figure 8 – Health & Wellness Centre, Pakarsangvi**



**Figure 9 - Health & Wellness Sub-Centre at Village Javla**



**Figure 10 - Meeting with Dr Barure, ADHO**

Latur District has successfully operationalized 46 PHCs and 87 sub-centres, totaling 233 facilities converted into fully functional health and wellness centres. Interaction with patients at OPD revealed that earlier, no doctors were available at sub-centres, so the rural population had to face difficulties in getting diagnosed and treated. After the availability of CHO at Health and

Wellness centres, there was an increase in the trend of patients at OPD, especially female patients, due to the availability of female CHOs.

Prior to Sanjeevani Abhiyan cancer screening/diagnosis, no such programs were carried out. Also, among the female population in rural areas, there was reluctance for screening, especially for breast cancer. It was a neglected issue, and there was hesitancy in the female population to come to the hospital, fearing the community would know if diagnosed with breast cancer. Cases of cancer used to be diagnosed at a late stage, leading to a decrease in the life expectancy of patients. Interaction with OPD patients revealed that before 2020, most of the population was not aware of the Ayushman Bharat scheme and other schemes launched by the government of Maharashtra. There existed a lack of trust and perception regarding public healthcare facilities.

Special efforts by Latur district to screen every 30 years and above population by conducting village-level monthly NCD camps to ensure awareness at all HWCs, door-to-door approach, dedicated/focused weekly NCD day has shown an increasing trend in registration from 2019 to 2022. Also, expanded range of services towards eye care, ENT care, elderly care, palliative care, and emergency and promotional cases through home visits camps have gained trust and confidence among the rural population. Through wellness programs at Latur, 27,475 different wellness activities like yoga sessions, marathons, cycling, walking, Zumba, etc. the district has now decided to focus now on what extra can be done for behavioral changes like what to eat, how to live a healthy life, mental health, and quality and quantity for universalization of healthcare. Maternal mortality deaths were earlier but with regular focus on NCD diseases like hypertension (78% target population screening) and diabetes (72% of target population screening) they were brought down.

ASHA workers made a difference by doing house-to-house surveys and encouraging the rural population to participate in Sanjeevani Abhiyan scheme and Jeevan Rekha ka scheme. Training of ASHA, ANM, and CHOs, timely recruitment of ML MP (CHO, PHS City), building of incentives given regularly, allocation of funds through DPC, provision of ambulances for free referral visits, MBBS medical officers' visits to health and wellness centres, substances, weekly IT services, diagnostics, and provision of drugs led to the successful implementation of innovative health schemes.

In the Latur District, the healthcare administration faced significant challenges in implementing innovative health schemes like Sanjeevani Abhiyan and Jeevan Rekha Kaksh Scheme for Maternal Mortality. However, through meticulous planning, dedication, and a collaborative approach, these challenges were effectively addressed.

Timely manpower recruitment was critical challenge. Latur District aimed to recruit 118 MBBS and 187 BAMS doctors to staff the HWCs adequately. This involved a rigorous recruitment process, coordination with educational institutions, and proactive outreach to potential candidates. The administration worked tirelessly to streamline the recruitment process, ensuring that qualified medical professionals were on boarded promptly.

Training and capacity building were imperative to CHO's, ASHA, Nodal Officers with the necessary skills and knowledge to deliver a wide range of services effectively. From eye care to mental health care, palliative care to emergency and trauma care, comprehensive training programs were designed and implemented. This not only enhanced the capabilities of healthcare providers but also improved the quality of care delivered to the community.

One of the primary hurdles encountered was the need to achieve 100% branding for the HWCs. Branding not only enhances visibility but also instills trust and credibility among the community. This required comprehensive marketing strategies and effective communication to ensure that the population was aware of the services offered and felt confident in utilizing them. Acceptance by the local rural population was about the health programs and to build trust and confidence especially during Sanjeevani Abhiyan Scheme was important for maximum turnout.

Ensuring the availability of medicines, including AYUSH medicines, and diagnostics posed logistical challenges. The administration worked closely with suppliers, manufacturers, and distributors to establish robust supply chains. Additionally, tele-consultation facilities were implemented to bridge gaps in access to specialized care, especially in remote areas.

Establishing Jan Arogya Samitis played a crucial role in fostering community engagement and ownership of healthcare initiatives. These grassroots committees facilitated dialogue between healthcare providers and the community, ensuring that services were tailored to local needs and preferences. Also local political leaders had to be convinced for community participation.

The appointment of yoga teachers for wellness programs posed a challenge for the district administration, given the limited time available. However, through strategic planning and effective resource allocation, this obstacle was successfully addressed, contributing to the enhancement of community well-being. To tackle this challenge, the administration adopted a multifaceted approach. Firstly, they expedited the recruitment process by collaborating closely with educational institutions, yoga academies, and local organizations specializing in yoga training. By leveraging existing networks and resources, they were able to identify qualified yoga instructors efficiently.

Provision of furniture, basic infrastructure for Lab Services was undertaken in limited time. Tele connectivity challenges existed in certain areas of District but were later sorted out for seamless connectivity.

## CHAPTER 7

### CONCLUSION AND RECOMMENDATIONS

#### 7.1 Conclusion

The implementation of Comprehensive Primary Health Care faces challenges as it requires a fundamental shift in the health system at all levels. The National Health Mission (NHM) has laid the groundwork for the effective rollout of Health and Wellness Centers (HWCs), and states should utilize this experience to ensure the successful implementation of HWCs. While the delivery of universal Comprehensive Primary Health Care through HWCs builds upon existing systems, it will require organizational change and system redesign at various levels to achieve its full potential. The Pradhan Mantri Jan Arogya Yojana (PMJAY), another component of Ayushman Bharat, points to offer money related assurance for auxiliary and tertiary care to roughly 40% of Indian families. The victory and reasonableness of PMJAY depend essentially on the compelling conveyance of Comprehensive Essential Well-being Care through HWCs. Together, these two components of Ayushman Bharat will encourage the accomplishment of the objective of All inclusive Well-being Scope.

The COVID-19 pandemic highlighted the urgent need to strengthen India's healthcare sector, which faces significant challenges due to low funding and inadequate infrastructure. To address this, the government should allocate at least 2.5% of GDP to healthcare, as recommended by the WHO. While various schemes like Ayushman Bharat have been launched, they face implementation challenges.

To bridge the healthcare gap, a new approach involving Public-Private Partnerships (PPP) is necessary. PPP can leverage the strengths of both sectors to provide quality healthcare services, especially to remote and underserved areas. It can also improve healthcare quality, reduce costs, stimulate innovation, and alleviate the burden on public hospitals. However, PPP requires careful planning, monitoring, and adherence to ethical and legal standards. The government must play a proactive role in promoting PPP in healthcare by creating an enabling policy environment and fostering partnerships with private providers.

In the 2024 Interim Budget, Finance Minister Nirmala Sitharaman outlined measures to strengthen the healthcare system. These include establishing more medical colleges, utilizing existing hospital infrastructure, and focusing on maternal and childcare schemes. Additionally, the budget aims to expand healthcare coverage under Ayushman Bharat and encourage cervical cancer vaccination for girls aged 9-14.

The strides made by the Latur district in enhancing healthcare access and delivery through innovative initiatives and targeted interventions are commendable. However, to sustain and enhance these positive trends, the Government of Maharashtra must ensure a regular increase in funds allocation to Latur District. This consistent increment is vital for fostering sustained growth, improving the quality of services, and bolstering overall socio-economic development across the state. By prioritizing continued financial support and strategic resource allocation, the government can further fortify its commitment to the welfare and prosperity of its citizens, thereby advancing the trajectory of progress in Maharashtra.

The district's focus on transforming 233 facilities into fully functional Health and Wellness Centers, coupled with innovative schemes like Sanjeevani Abhiyan and Jeevan Rekha ka scheme, has significantly improved healthcare accessibility and awareness. The engagement of community health officers (CHOs) has notably increased patient visits, particularly among female populations, addressing previously prevalent challenges in diagnostic and treatment access. The district's proactive approach to cancer screening and the successful implementation of wellness programs demonstrates a commitment to holistic healthcare.

However, the recommendations emphasize the need for sustained efforts, including the completion of operationalizing of remaining facilities, targeted outreach for ANC, quality improvement, TB control, tobacco awareness, infrastructure maintenance, and ensuring reliable ambulance services. Empowering Gram Panchayats in medicine procurement and extending proactive health initiatives to a wider demographic further strengthens the district's healthcare landscape. These recommendations, if implemented, will bolster the positive trajectory witnessed in Latur district's healthcare sector and contribute to the overarching goal of universal and equitable healthcare.

Ayushman Bharat Scheme has been useful in providing a comprehensive and expanded range of health services to our citizens through Health and Wellness Centres, thus resulting in a reduction of out-of-pocket expenditure and the development of a SWASTHA COMMUNITY. The villages on the outskirts of Latur district stand as crucial areas requiring attention in coming years from the district health department, particularly in addressing the pressing issue of Non-Communicable Diseases (NCDs). It is imperative for the authorities to swiftly identify villages in these remote regions, where healthcare access might be limited or inadequate. Once identified, intensive health programs tailored specifically for combating NCDs should be promptly initiated. By targeting these underserved areas and addressing the specific health needs of the population, significant strides can be made towards achieving better health outcomes and fostering overall well-being in the community.

To ensure the effective delivery of primary health care services, protocols for quality assurance must be institutionalized at HWC. The mere availability of services is not enough and the services need to be accessible, safe, patient-centred, acceptable, equitable and provided with dignity and confidentiality. Health is influenced by an array of factors, including social, genetic, environmental, and other factors that cut across many different sectors. Improving the health of populations therefore will require a collaborative, intersect oral effort that involves public and private organizations and individuals. At the same time, both health problems and community needs, resources, and circumstances vary among localities, so no single approach to combating health problems can be applied.

Primary care and public health are uniquely positioned to play critical roles in tackling the complex health problems that exist both nationally and locally. They share a similar goal of health improvement and can build on this shared platform to catalyze intersect oral partnerships designed to bring about sustained improvements in population health. In addition, they have strong ties at the community level and can leverage their positions to link community organizations and resources. Thus, the integration of primary care and public health holds great promise as a way to improve the health of society.

## 7.2 Recommendations

Under Ayushman Bharat, Latur district successfully operationalized 46 PHCs (100%) and 187 (94%) Sub Centres, a total 233 facilities were converted into fully functional Health Wellness Centers. There is a need to address the outstanding 6% of Sub-Centers that are yet to be made fully functional. Concerted efforts must be made to expedite the operationalization of these remaining facilities to ensure equitable access to healthcare services for all residents of Latur district.

**Enhanced Outreach Programs:** There has been a fluctuating trend in ANC registration over the years at Latur District. The highest number of registrations was observed in the year 2020-21 with 33,383 registrations, followed by a decline in subsequent years, reaching 24,604 registrations by December 2022. Implement targeted outreach programs to increase awareness and encourage timely ANC registration and attendance. Reach the small villages on outskirts of Latur District and conduct outreach programmes. **Quality Improvement Initiatives:** Invest in training healthcare providers to ensure the delivery of high-quality ANC services. **Community Engagement:** Engage communities regularly through awareness campaigns to promote the importance of immunization and regular health check-ups.

**TB Control Measures:** The prevalence of Tuberculosis (TB) has shown an irregular pattern in Latur District. There was a significant decrease observed in 2020-21 with 2,105 cases, followed by an increase in the subsequent year, reaching 3,018 cases by December 2022. This highlights strengthening TB control measures, including early detection, treatment adherence, and infection control. Tobacco consumption in rural population of Latur District is high including construction workers as per various studies conducted. A need for awareness, education and communication, health camps focusing on the adverse effects of tobacco use needs more focus.

The inadequate road infrastructure in rural areas of Latur poses a significant obstacle to timely access to public health centers, exacerbating the challenges faced by local communities. With roads often poorly maintained or non-existent, residents encounter prolonged travel times, hindering their ability to seek essential medical care promptly. This delay in reaching health facilities not only jeopardizes individual health outcomes but also strains the overall public health system. Addressing this issue requires concerted efforts from local authorities to prioritize

road development projects in rural areas, ensuring that residents can access critical healthcare services without unnecessary delays. Additionally, investments in transportation infrastructure would not only improve healthcare accessibility but also contribute to overall socioeconomic development in these underserved regions.

The condition of building infrastructure at Latur sub-centers, particularly regarding the state of the toilets, is a pressing concern that demands immediate attention. The current facilities often suffer from neglect and lack of maintenance, compromising hygiene standards and overall functionality. The inadequate upkeep of these essential amenities not only poses health risks to patients and staff but also undermines the dignity and comfort of those seeking healthcare services. To address this issue effectively, a comprehensive approach to regular maintenance and renovation is imperative. District authorities must prioritize allocating resources for infrastructure improvements and establish protocols for ongoing upkeep.

The reliance on contracted ambulance services at health and wellness centers in Latur has unveiled a critical issue that demands immediate attention. Interactions with the village community and patients have highlighted instances where contracted ambulance drivers are not receiving regular payments from the contractors. Consequently, this financial instability has resulted in the non-availability of ambulance drivers during emergencies, leaving vital healthcare services at risk. To circumvent this predicament, some centers have resorted to seeking assistance from local village drivers, albeit with uncertain qualifications and expertise. This concerning situation underscores the urgent need for district authorities to intervene and address the underlying problems within the contracted ambulance services. By ensuring that contractors fulfill their financial obligations to ambulance drivers promptly, the district can guarantee a reliable and consistent emergency response system. Moreover, there is a necessity to establish robust oversight mechanisms to monitor the performance and conduct of contracted ambulance services, safeguarding the quality and reliability of healthcare transportation in rural areas. In light of these revelations, it is imperative for the district to undertake immediate corrective actions, including thorough investigations into payment discrepancies and the establishment of protocols to ensure timely disbursements to ambulance drivers. The annual procurement of medicines and drugs by the district health department of Latur District plays a crucial role in ensuring the availability of essential healthcare supplies at Health and Wellness Centers (HWCs)

and Sub-Centers. However, to address potential shortages and guarantee uninterrupted access to medications, empowering Gram Panchayats to procure medicines when shortages occur could be a viable solution. By decentralizing this authority to the local level, Gram Panchayats can swiftly respond to emerging healthcare needs within their communities, effectively mitigating the impact of supply disruptions. This initiative not only enhances the efficiency of the healthcare supply chain but also fosters greater community involvement in healthcare management, ultimately contributing to improved health outcomes and patient satisfaction.

The successful implementation of the "Sanjeevani Abhiyan" for cancer screening and diagnostics among women underscores the importance of proactive healthcare initiatives. With a focus on early detection and intervention, this flagship program has screened a substantial number of women for cervical and breast cancer, leading to the identification and subsequent treatment of suspected cases. Building on this momentum, it is highly recommended to extend a similar drive to men aged between 20 to 30 years, encompassing screenings for non-communicable diseases (NCDs) such as diabetes and hypertension. The success achieved by Latur District in Maharashtra through its comprehensive implementation of the Health and Wellness Centres (HWCs) initiative under the Ayushman Bharat Scheme serves as an exemplary model for other districts to replicate.

Patient satisfaction surveys are vital in government hospitals. These surveys use a structured approach to provide meaningful input and highlight areas for development. The Ministry of Health and Family Welfare (MOHFW) has launched the My Hospital portal (<https://meraasptaal.nhp.gov.in/>) to collect patient input via a variety of channels including SMS, outbound calling, mobile applications, and web portals. Patients and attendants can provide feedback in seven languages, rating their experience on five levels: Very Satisfied, Satisfied, and Not Satisfied, with the option to indicate reasons for displeasure. This input is critical because it enables the collection, analysis, and display of data via a dashboard that is accessible to stakeholders at the facility, district, state, and national levels. Such a dashboard helps to identify concerns and improve healthcare services. The Ministry has created a Compendium that highlights the development and best practices of Ayushman Bharat Health and Wellness Centers (AB-HWCs). States are encouraged to implement these best practices, adjusted to their own needs, to strengthen primary healthcare systems. Furthermore, subsidizing adult

vaccinations, including influenza, HPV for women, pneumococcal disease, and zoster, is recommended as a preventive measure among vulnerable populations.

Despite the pressing need for adequate healthcare infrastructure, the allocation to the health sector remains insufficient. In the 2024-2025 budget, only Rs 90,171 crore was allocated, far below the recommended 2.5% of GDP, which should have been Rs 8,19,000 crore. Increasing budgetary provision to 2.5% of GDP is essential for achieving universal health coverage.

Moreover, addressing the shortage of healthcare workers requires strategies such as expanding medical colleges, enhancing training programs, and offering financial incentives to professionals serving in underserved areas. Enforcing regulations, implementing quality control measures, increasing transparency, and conducting audits are necessary steps to ensure the effectiveness of healthcare programs. Finally, strengthening mental health services requires more funding, greater training for healthcare staff, and measures to lessen the societal stigma associated with mental illness. These measures are critical to improving the overall healthcare scene and ensuring the population's well-being.

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# ANNEXURE 1

## Photographs of Innovative Health Schemes in Latur



Figure 11 - HWC Footfall (OPD)



Figure 12 - Wellness activity



Figure 13 - Wellness activity



Figure 14 -HWC Footfall (OPD)

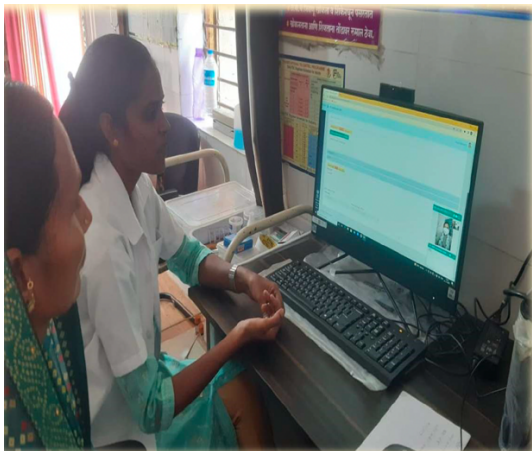


Figure 15 – Tele consultation facility at HWC

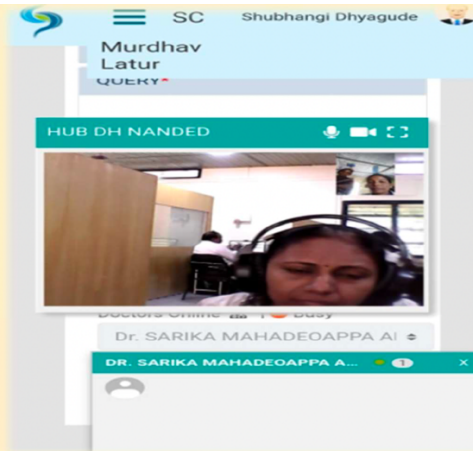




Figure 16 – Non-communicable diseases screening (High-blood pressure & diabetes)



Figure 17 – Sanjeevani Abhiyan Cancer Awareness