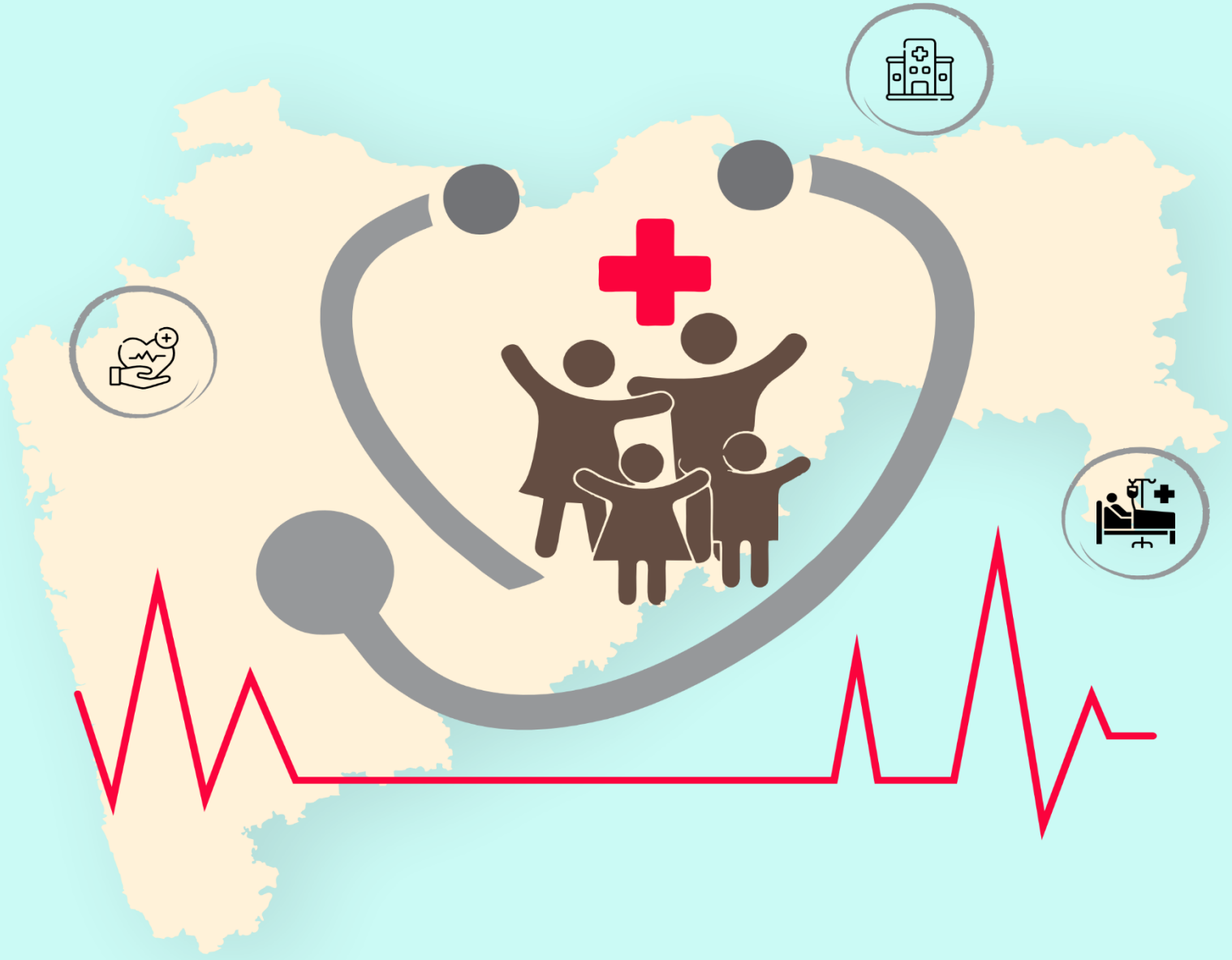
Exploring the Utilization of the Health Schemes in Maharashtra

(Study of the MMR Region)

Research Study 2024-25



Regional Centre for Urban & Environmental Studies
All India Institute of Local Self-Government
Established in the year 1968, supported by the Ministry of Housing & Urban Affairs, Government of India

Preface

Urban health is an urgent and growing priority, particularly in densely populated regions such as Maharashtra and Mumbai Metropolitan Region (MMR), where disparities in access to care and service delivery remain complex and pressing. This study examines how urban health services operate in these challenging contexts, with a particular focus on the implementation and lived experience of three major government programs: National Urban Health Mission (NUHM), Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) and Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY).

The scope of the study extends beyond infrastructure and service coverage to explore how different schemes converge to improve efficiency and access. It documents successful examples of such convergence, along with notable good practices from Maharashtra.

Based on field observations, community interactions, and an in-depth analysis of policies and available data, this work seeks to inform more effective planning and delivery of urban health services. It is aligned with the Ministry of Housing and Urban Affairs (MoHUA), Government of India's vision of integrating health outcomes into the broader urban development agenda. By focusing on last-mile realities and learning from proven approaches, the study aims to contribute to the creation of urban health systems that are inclusive, responsive, and attuned to community needs.

Acknowledgement

Regional Centre for Urban & Environmental Studies (RCUES) of All India Institute of Local Self Government (AIILSG), Mumbai, takes this opportunity to put on record our deep appreciation for the Ministry of Housing & Urban Affairs (MoHUA), Government of India (GoI), for providing us with an opportunity to work on this study.

The RCUES of AIILSG, Mumbai, also takes the opportunity to express gratitude towards Shri. Ranjit Chavan, President, AIILSG and Dr. Jairaj Phatak, IAS (Retd.), Director General, AIILSG, for providing their valuable guidance and support to complete this study. We express sincere thanks to Dr. (Prof.) Sneha Palnitkar, Chief Executive Officer, Waste Management & Research Centre, AIILSG, for providing the necessary subject input and extending continued support in completing this study.

We extend our sincere thanks to the State Health Assurance Society (SHAS), Maharashtra, and the team working on the Integrated AB-PMJAY & MJPJAY, Maharashtra, for their support throughout this study. We are especially grateful to Dr. Annasaheb Chavan (IAS), Chief Executive Officer, SHAS, for his guidance. We also thank the selected municipal corporations for their incredible support, as well as the volunteers whose contribution to data collection was invaluable. This research study has been undertaken by Ms. Yashashree Rane, Jr. Research Officer, RCUES of AIILSG, Mumbai.

Dr. Ajit Salvi
Director,
RCUES of AIILSG,
Mumbai.

31st March 2025

Table of Contents

Glossary

Sr.No.	Term	Definition
1	Accessibility	The degree to which healthcare services are available and affordable to populations, including physical, financial, and social access.
2	Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)	A Government of India health insurance scheme providing coverage of up to Rs. 5 lakh per family per year for secondary and tertiary care hospitalization.
3	Beneficiary	An individual or family eligible to receive benefits under government health schemes.
4	Digital Health	Use of information technology, telemedicine, and digital platforms to improve delivery and monitoring of healthcare.
5	Health Infrastructure	The physical and organizational structures, such as hospitals, clinics, health centres, and diagnostic facilities, that support healthcare delivery.
6	Health Scheme Utilization	The extent to which beneficiaries access and use the services provided under health schemes.
7	Integrated Health System	A coordinated approach to healthcare delivery that ensures different programs, schemes, and institutions work together effectively.
8	Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY)	A flagship health insurance scheme of Maharashtra, offering free treatment for economically weaker sections across empanelled hospitals.
9	Mumbai Metropolitan Region (MMR)	The metropolitan area consists of Mumbai city and its surrounding urban and semi-urban regions, under the Mumbai Metropolitan Region Development Authority (MMRDA).
10	National Health Mission (NHM)	A government initiative to strengthen healthcare infrastructure and services, including the National Urban Health Mission (NUHM).
11	Public Health Initiatives	Programs, policies, and schemes launched by governments or institutions to improve population health outcomes.
12	Scheme Enrollment	The process of registering eligible individuals or families into a government health program.
13	Scheme Monitoring and Evaluation	The assessment of implementation, performance, and outcomes of health schemes to ensure effectiveness.
14	Urban Health Challenges	Specific issues faced by urban populations include overcrowding, pollution, lifestyle diseases, and inequities in access to healthcare.

List of Abbreviations

Sr. No.	Abbreviation	Full Form
1	ABHA	Ayushman Bharat Health Account
2	ABDM	Ayushman Bharat Digital Mission
3	AB-PMJAY	Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana
4	ADB	Asian Development Bank
5	AI	Artificial Intelligence
6	APL	Above Poverty Line
7	ASHA	Accredited Social Health Activist
8	BCC	Behavior Change Communication
9	BIS	Beneficiary Identification System
10	BMC	Brihanmumbai Municipal Corporation
11	BPL	Below Poverty Line
12	COVID-19	Coronavirus Disease 2019
13	DMER	Directorate of Medical Education and Research
14	DMHP	District Mental Health Program
15	EHR	Electronic Health Record
16	EPI	Expanded Programme on Immunization
17	FACTS	Fraud and Abuse Control Tracking System
18	GoI	Government of India
19	GPEI	Global Polio Eradication Initiative
20	HEM	Hospital Empanelment Module
21	HMIS	Health Management Information System
22	HWC	Health and Wellness Centre
23	ICMR	Indian Council of Medical Research
24	IEC	Information, Education and Communication
25	IPHS	Indian Public Health Standards
26	IRDAI	Insurance Regulatory and Development Authority of India
27	JJ Hospital	Grant Government Medical College and Sir J. J. Group of Hospitals
28	JSY	Janani Suraksha Yojana
29	KEM Hospital	King Edward Memorial Hospital
30	KYC	Know Your Customer
31	LTMG Hospital (Sion Hospital)	Lokmanya Tilak Municipal General Hospital
32	MAS	Mahila Arogya Samiti
33	MJPJAY	Mahatma Jyotirao Phule Jan Arogya Yojana
34	MMU	Mobile Medical Unit
35	MMR	Mumbai Metropolitan Region
36	MoHFW	Ministry of Health and Family Welfare

Sr. No.	Abbreviation	Full Form
37	MoHUA	Ministry of Housing and Urban Affairs
38	MSHAS	Maharashtra State Health Assurance Society
39	NCDs	Non-Communicable Diseases
40	NGOs	Non-governmental organizations
41	NHM	National Health Mission
42	NHA	National Health Authority
43	NPCDCS	National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke
44	NRHM	National Rural Health Mission
45	NUHM	National Urban Health Mission
46	OOPE	Out-of-Pocket Expenditure
47	PHC	Primary Health Centre
48	PIPs	Project Implementation Plans
49	PPPs	Public-Private Partnerships
50	RADAR	Risk Assessment, Detection and Analytical Reporting
51	RCH	Reproductive and Child Health
52	RGJAY	Rajiv Gandhi Jeevandayee Arogya Yojana
53	RKS	Rogi Kalyan Samiti
54	RMNCH+A	Reproductive, Maternal, Newborn, Child and Adolescent Health
55	RSBY	Rashtriya Swasthya Bima Yojana
56	SDG	Sustainable Development Goal
57	SECC	Socio-Economic Caste Census
58	SHAS	State Health Assurance Society
59	SHAs	State Health Agencies
60	TB	Tuberculosis
61	TMS	Transaction Management System
62	UHP	Urban Health Post
63	UIP	Universal Immunization Programme
64	UHC	Universal Health Coverage
65	UHP	Urban Health Post
66	UIP	Universal Immunization Programme
67	ULBs	Urban Local Bodies
68	UNICEF	United Nations Children's Fund
69	UPHC	Urban Primary Health Centre
70	WHO	World Health Organization

List of Tables

List of Charts

Chapter - 1

Introduction

A strong public health system is built on the foundations of accessible and affordable healthcare. These factors shape individual well-being, reduce social inequalities, and signal broader achievements in economic and human development. India too has pursued this vision through a mix of national and state-level initiatives, gradually expanding health coverage and financial protection. Within this framework, the National Health Mission (NHM), the Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), and Maharashtra's Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) play a pivotal role in enabling access to affordable medical services.

Maharashtra, as one of India's most urbanized and economically advanced states, offers a unique context. The state benefits from strong institutional capacity and advanced medical facilities, particularly in metropolitan areas. At the same time, regional variations remained, shaped by differences between urban centres and semi-urban or tribal peripheries. The Mumbai Metropolitan Region (MMR), comprising Mumbai, Suburban Mumbai, Navi Mumbai, Thane, Kalyan-Dombivli, Panvel, Mira-Bhayandar, and Vasai-Virar illustrates this diversity.

Rapid urbanization in Maharashtra, particularly within the MMR region, has significantly increased healthcare demand. High population density, large slum clusters, and continuous migration from other states amplify pressure on both public and private health facilities. Urban overcrowding contributes to higher prevalence of communicable diseases such as tuberculosis and vector-borne illnesses, as well as non-communicable diseases linked to lifestyle and environmental stressors (MoHFW, GoI, 2024). While empaneled hospitals are concentrated in central urban districts, peripheral and semi-urban wards experienced shortages in primary and secondary health care access. For instance, outpatient load at Urban Primary Health Centres (UPHCs) often exceeds the designed capacity of 50,000 people per centre, leading to longer waiting times, overburdened staff, and reduced quality of care. Similarly, the demand for specialized services in tertiary hospitals frequently exceeds available beds, particularly in Mumbai's major hospitals.

Integrating demand-supply analysis into policy planning is critical to reducing health inequities, especially for vulnerable populations living in informal settlements, migrants, and low-income households. Data-driven strategies, including geospatial mapping, real-time monitoring of patient inflow, and predictive modelling of disease burden, can enhance both preventive and curative interventions. These approaches ensure that the NHM, AB-PMJAY, and MJPJAY

effectively meet the evolving health needs of Maharashtra's urban population, providing a foundation for equitable, accessible, and sustainable healthcare delivery.

Over the years, policy responses have sought to bridge these gaps through both supply-side improvements and demand-side financing mechanisms. The NHM, launched in 2005, expanded primary health services through rural sub-centres, Accredited Social Health Activists (ASHAs), and mobile health units. Complementing this, AB-PMJAY (2018) and MJPJAY (2012) represent a shift towards publicly funded health assurance. Implemented in Maharashtra through the Maharashtra State Health Assurance Society (MSHAS), these schemes extend financial protection by covering hospital-based care, reducing out-of-pocket expenditure, and strengthening access for low-income households.

According to an Asian Development Bank (ADB) study in 2023, the distribution of empaneled hospitals in Maharashtra shows a concentration in a few urban districts, while outer regions continue to expand coverage. The state currently averages one empaneled hospital per 1,00,000 eligible people, compared to the national average of three. This highlights the importance of balanced geographical representation to fully realize the benefits of health assurance schemes. Private sector participation has been encouraged to complement public capacity, especially in urban centres like the MMR region. While many small and medium-sized private hospitals have joined the network, larger multispecialty hospitals often take time in engaging with the schemes due to administrative and financial considerations. This makes it important to continuously strengthen public facilities while also encouraging broader private sector involvement, so that beneficiaries across regions can access services with greater ease.

Considering this, policy efforts underline India's commitment to universal, affordable healthcare. As Hon'ble Prime Minister Narendra Modi has stated: "Our goal is to ensure that every citizen of India gets the best possible healthcare, irrespective of their economic status." Realizing this vision requires not only financial coverage but also ongoing investments in infrastructure, effective partnerships, and strong community engagement.

1.1 Orientation of the Study

This research adopts a policy-to-practice perspective with a focused lens on the MMR region. It evaluates accessibility, affordability, and equity in the implementation of NHM, AB-PMJAY, and MJPJAY within the MMR region, highlighting how these health schemes function across the region's diverse and complex urban landscape.

1.2 Objective of the Study

The primary objective of this study is to assess the extent of utilization of government health schemes in the MMR region, with a focus on key urban centres, such as Mumbai, Thane, Kalyan-Dombivli, Panvel, Navi Mumbai, Mira-Bhayandar, and Vasai-Virar. The study aims to do the following:

i. To analyze the awareness levels of government health schemes among residents in these cities of the MMR region.

ii. To assess the extent of enrollment and utilization of NHM, AB-PMJAY, and MJPJAY within these cities.

iii. To evaluate the challenges faced by beneficiaries in availing services under these schemes.

iv. To offer constructive policy suggestions for strengthening access, efficiency, and equitable delivery of government health schemes in the MMR region.

1.3 Research Methodology

This study follows a mixed-methods design, combining quantitative and qualitative approaches to understand patterns and determinants of public health scheme utilization in MMR region. The Primary data was collected through household surveys, citizen interviews, and stakeholder consultations across the major MMR cities: Mumbai, Thane, Kalyan-Dombivli, Panvel, Navi Mumbai, Mira-Bhayandar, and Vasai-Virar. Secondary data was sourced from government portals, official reports, and published studies by reputed institutions. A multi-stage sampling approach was adopted. First, purposive sampling was used to select representative wards in each city. Cluster sampling was then applied to divide these areas into manageable survey units. Finally, stratified sampling ensures balanced representation across socio-economic groups, gender, age, and settlement types. In addition, key informant interviews with health officials and frontline workers [ASHA, Urban Health Post (UHP) staff], along with focus group discussions, provided qualitative insights to complement survey findings. This combination ensures both statistical validity and contextual depth in understanding health scheme utilization in the MMR.

1.4 Scope and Limitations:

i. Scope:

- Study of beneficiaries' awareness, enrollment trends, and actual utilization patterns.
- Identification of infrastructural, administrative, and socio-economic barriers shaping healthcare access.

ii. Limitations:

- The findings are geographically specific to the MMR region, particularly in cities such as Mumbai, Thane, Kalyan-Dombivli, Panvel, Navi Mumbai, Mira-Bhayandar, and Vasai-Virar, may not fully represent other regions of Maharashtra.
- The Data collection is based partly on self-reported responses, which may involve recall or reporting bias.
- The study does not focus on the financial sustainability of schemes but rather their accessibility and utilization.

1.5 Hypothesis and Key Questions

i. Hypothesis

- Awareness and accessibility significantly influence the utilization of government health schemes in the MMR region.
- Socio-economic status and geographic location significantly influence the level of healthcare scheme utilization across the MMR region, particularly in selected cities for this research study.
- The perceived quality of healthcare services impacts beneficiaries' willingness to enroll and utilize government health schemes.

ii. Research Questions:

- What is the current level of awareness and understanding of government health schemes among residents of the MMR region?
- Which socio-economic and service-related factors most significantly influence the enrollment and utilization of these schemes?
- What policy interventions or administrative measures can improve the accessibility, quality, and efficiency of government health schemes across the Mumbai Metropolitan Region, particularly in selected cities for this research study.

Chapter - 2

Evolution and Impact of Public Health Schemes in India

2.1 Introduction

Public health has long been a cornerstone of national development in India, evolving alongside the country's political, social, and economic transitions. From its colonial origins in epidemic control to contemporary efforts aimed at universal health coverage, India's public health journey reflects both persistent challenges and notable innovations. Maharashtra has often been at the forefront of these developments, leading in health reform, implementation, and crisis response. This chapter situates the evolution of health schemes in India within global frameworks such as the World Health Organization (WHO) directives and the Sustainable Development Goals (SDGs), while also tracing Maharashtra's contributions in disease eradication, health system strengthening, and programmatic innovation.

2.2 Historical Context of Health Schemes in India

India's public health infrastructure began to develop during the colonial period, mainly in response to epidemics such as cholera, plague, and malaria, with interventions concentrated in urban areas to safeguard colonial interests. Foundational institutions like the Indian Research Fund Association (1911), later renamed the Indian Council of Medical Research (ICMR) in 1949, and the Central Health Board (1912) helped establish structured research and early public health surveillance. A major milestone was the Bhore Committee Report (1946), which proposed a publicly funded, integrated health system with a three-tier structure: primary, secondary, and tertiary care, shaping health planning after independence. Following 1947, health became central to India's Five-Year Plans, leading to the creation of Primary Health Centres (PHCs) and disease-control programmes such as the National Malaria Control Programme (1953) and the National Tuberculosis Programme (1962). Global influence strengthened in the 1970s and 1980s, especially with the Alma-Ata Declaration (1978), which promoted "Health for All," prompting India to expand primary healthcare and adopt its first National Health Policy (1983). The economic reforms of 1990s brought greater private-sector participation and a shift toward insurance-based models, alongside key initiatives such as the Reproductive and Child Health (RCH) Programme (1997) and Janani Suraksha Yojana (2005) to improve maternal and child health outcomes.

In 2005, the launch of the National Rural Health Mission (NRHM) marked a significant shift toward strengthening rural health infrastructure and human resources. By 2013, this evolved into the

National Health Mission (NHM), incorporating both rural and urban components through the National Urban Health Mission (NUHM)[1]. Parallel to this, the Rashtriya Swasthya Bima Yojana (RSBY) was introduced to provide health insurance to families living below the poverty line, marking a growing emphasis on financial protection in healthcare. Perhaps the most ambitious reform came with Ayushman Bharat (2018), designed around two pillars: Health and Wellness Centres (HWCs) for comprehensive primary care, and AB-PMJAY providing hospitalization coverage to over 100 million vulnerable families. This reform marked a decisive step toward Universal Health Coverage (UHC), aligning India's priorities with global commitments under the SDGs.

India's public health system has been shaped by global frameworks, particularly those of the WHO and the United Nations' SDGs. These platforms provided both technical guidance and strategic benchmarks for national programs, especially in immunization, communicable disease control, and health financing. The Expanded Programme on Immunization (EPI), launched in the late 1970s, later strengthened as the Universal Immunization Programme (UIP), benefited from WHO's technical expertise. Collaborative efforts with WHO, United Nations Children's Fund (UNICEF), and the Global Polio Eradication Initiative (GPEI) were crucial in India achieving polio-free status in 2014. The Pulse Polio Immunization Campaign became a model for large-scale community outreach.

Following the adoption of the SDGs, particularly SDG 3: Ensure healthy lives and promote well-being for all. Aligned policies such as AB-PMJAY with global priorities, focusing on reducing financial risk and expanding healthcare access. India's engagement in the Global Action Plan for Healthy Lives and Well-being for All, a WHO-led initiative, has further emphasized areas such as non-communicable diseases (NCDs), mental health, and pandemic preparedness. The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) exemplify this shift, integrating chronic disease management into mainstream public health delivery.

2.3 Maharashtra's Health Policy Landscape

Maharashtra has often stood out as a frontrunner in shaping innovative policies and institutional frameworks. Building on the Bhore Committee's recommendations in the early post-independence years, the state expanded a strong network of Primary Health Centres (PHCs) and sub-centres. Alongside infrastructure, Maharashtra also prioritized family planning, maternal and child health, and nutrition programs, laying the foundation for a comprehensive health system.

[1] Maharashtra was among the first states to pilot urban health innovations, especially in Mumbai, which later influenced national programs like the NUHM.

In the 1970s and 1980s, Maharashtra strengthened disease control efforts, particularly in tuberculosis and leprosy. Urban health innovations emerged in Mumbai, where slum-based immunization and sanitation models later informed national-level strategies. In the subsequent decades, immunization remained a central focus, and Maharashtra became an active participant in Mission Indradhanush (2014)[2] and its intensified phases, which sought to achieve more than 90% full immunization coverage. Through targeted drives in urban slums, tribal belts, and hard-to-reach rural pockets, the state significantly reduced drop-out rates and improved child and maternal health outcomes, reinforcing its reputation as a frontrunner in preventive health. A landmark intervention was the launch of the MJPJAY[3] in 2012, one of India's earliest large-scale state health insurance programs. Covering nearly 10 million families, it offered cashless treatment for 971 procedures through a network of over 1,000 hospitals, including many private facilities. MJPJAY was later integrated structurally with AB-PMJAY, embedding Public-Private Partnerships (PPPs) into state health delivery.

In recent years, particularly during the COVID-19 pandemic, Maharashtra, most notably Mumbai and Pune, faced some of the country's heaviest caseloads and introduced several important public health innovations. The state set up decentralized "war rooms", strengthened oxygen supply chains, and used digital dashboards for real-time monitoring and coordination. Community-driven initiatives like "My Family, My Responsibility" helped promote preventive care, home-based surveillance, and vaccination uptake. At the same time, the Brihanmumbai Municipal Corporation (BMC) expanded its "Aapla Dawakhana" clinics, launched in 2019, to deliver free outpatient services, diagnostics, and essential medicines to informal workers and low-income communities. Maharashtra also advanced its digital health efforts through the Ayushman Bharat Digital Mission (ABDM), piloting electronic health records and telemedicine platforms to improve continuity of care and support data-driven governance.

[2] Mission Indradhanush, launched in 2014, was a national immunization drive aimed at covering unvaccinated and partially vaccinated children. Maharashtra integrated this mission with its urban outreach models, particularly in slum areas.

[3] The Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY), launched in 2012, predated the central PM-JAY scheme and is regarded as one of the earliest state-led health insurance programs in India.

Chapter - 3

Overview of Urban Health Schemes

3.1 National Urban Health Mission (NUHM)

3.1.1 Introduction

The National Health Mission (NHM) represents one of the most ambitious reforms in India's public health system. Launched in 2013, it builds upon earlier public health initiatives to advance the goal of universal access to affordable, equitable, and quality healthcare, bridging long-standing gaps between rural and urban populations. With urban populations growing at nearly 2.3% annually, health challenges in cities, particularly within slums and informal settlements, have become increasingly visible. Recognizing the rapid pace of urbanization and the distinct health vulnerabilities emerging in urban contexts, the NUHM was introduced as a dedicated sub-mission under NHM. The NUHM marked a critical shift toward mainstreaming urban health within the national policy agenda and holds particular significance for high-density metropolitan regions such as the MMR region, where urban poverty, migration, and health inequities converge.

3.1.2 Objectives

The NUHM was conceptualized to address the unique health demands of the urban poor, particularly those residing in slums, informal settlements, and areas with high migrant populations.

i. Improving Access: Expand access to quality primary healthcare for the urban poor, particularly slum dwellers.

ii. Strengthening Systems: Build and strengthen the urban public health system to provide preventive, promotive, and curative services.

iii. Reducing Costs: Minimize out-of-pocket expenditure through free or subsidized services.

iv. Targeting Vulnerable Groups: Ensure inclusion of migrants, street children, the homeless, and other marginalized communities who are often excluded from conventional health coverage.

v. Community Engagement: Promote active community participation and convergence with other welfare schemes to address social determinants of health.

This multi-pronged approach highlights that NUHM is not merely about expanding infrastructure but also about creating inclusive, people-centered health systems.

3.1.3 Implementation of Mechanisms and Institutional Framework

The NHM operates through annually prepared State Project Implementation Plans (PIPs), which are jointly appraised and financed by both the central and state governments. The NUHM mandates a strong partnership between State Health Departments and Urban Local Bodies (ULBs). This decentralized structure ensures that municipal-level realities are integrated into health planning. A significant institutional feature of NUHM is the establishment of Urban Primary Health Centres (UPHCs), each catering to approximately 50,000 people. These centres act as the first point of contact for healthcare in cities, supported by outreach services, referral mechanisms, and linkages with secondary facilities. In Maharashtra, the Public Health Department coordinates the program, while municipal corporations and councils are responsible for direct implementation. This structure allows the mission to maintain statewide coherence while being responsive to local needs. Maharashtra has been a pioneer in adopting NHM strategies, and the MMR region serves as a critical test ground for NUHM's urban interventions[4]. With over 23 million residents, the MMR region's health challenges are amplified by population density, rapid migration, and the persistence of large slum clusters. NUHM in the MMR region works alongside state-level schemes like MJPJAY to ensure financial protection for patients requiring hospitalization. This integration helps bridge primary and secondary/tertiary care, although the operational details at the ground level are still evolving. Coordination improves patient coverage, but systematic tracking of scheme overlaps is limited. Efforts are ongoing to strengthen linkages between UPHCs and insurance schemes. This ensures vulnerable populations benefit from both preventive and inpatient services.

The implementation of the NUHM in the MMR region has focused on strengthening healthcare delivery for poor urban populations. The UPHCs have been established across municipal areas, while Mobile Medical Units (MMUs) serve migrant and homeless groups, ensuring access beyond fixed facilities. In cities like Mumbai, Thane, Navi Mumbai, and Mira-Bhayandar, NUHM activities have been integrated with municipal health departments, improving coordination and resource use. UPHCs in the MMR region provide essential primary healthcare to slum and marginalized populations, serving thousands monthly. However, comprehensive utilization statistics are not uniformly available, making it difficult to assess coverage and workload

[4] Maharashtra was one of the first states to notify State Health Mission and State Health Society, ensuring early institutional readiness for NHM implementation.

precisely. Limited reporting and variations across municipal wards affect data consistency. Monitoring mechanisms are being enhanced through digital tools like eSushrut. Accurate data is essential for planning and resource allocation. Maternal and child health services, including immunization, institutional deliveries, and family planning, have been given priority. Urban Accredited Social Health Activists (ASHAs) further connect slum populations to health services, though challenges persist in the form of human resource shortages, uneven coverage, and high demand in congested wards. Digital platforms like RCH and eSushrut track immunization, maternal health, and patient records in urban areas. While they support administrative reporting, their actual impact on service delivery and patient outcomes is not fully assessed. Data entry gaps and uneven adoption in dense slum areas reduce effectiveness. Continuous evaluation and training are needed to maximize benefits. These tools have potential but require systematic impact measurement. UPHCs act as the first point of care and are linked to secondary and tertiary hospitals for more complex cases. While referral mechanisms exist, detailed tracking of patient movement is limited. Strengthening these pathways would reduce delays in accessing higher-level care. Current referral systems rely on both municipal coordination and individual patient follow-up. Improved referral data can enhance service efficiency and health outcomes. A structured view of NHM verticals highlights both progress and gaps. Service delivery through UPHCs and outreach has responded to the needs of slum areas, while shortages of doctors, nurses, and specialists remain pressing. Financing through Centre State cost-sharing has enabled free and subsidized care, reducing out-of-pocket spending[5]. The MMUs and urban ASHAs focus on reaching migrants, street dwellers, and informal settlement residents. Despite this, gaps remain in awareness and utilization among these groups. Cultural, linguistic, and mobility barriers continue to limit access. Ongoing outreach and community engagement help address these challenges. Strengthening trust and service visibility is key to improving coverage. Community participation, through Mahila Arogya Samitis and Ward Committees, has mobilized local action in clusters like Dharavi and Govandi. Convergence with schemes such as Swachh Bharat Mission – Urban (SBM-U), Integrated Child Development Services Scheme (ICDS), and AB-PMJAY has also been vital, addressing health alongside sanitation and nutrition[6]. Overall, NUHM in the MMR region goes beyond clinical care; it links health with governance, sanitation, and social development, reflecting the intertwined nature of urban health challenges.

[5] The out-of-pocket (OOP) expenditure in Maharashtra remains above the national average, showing the limits of free/subsidized services in high-cost metro regions.

[6] The NHM emphasizes convergence not only with health-specific schemes but also with urban missions, highlighting the multi-sectoral nature of urban health.

Table 1: Key Features of NUHM

Feature	Description
Population Coverage Norm	1 UPHC per 50,000 urban population
Implementing Agencies	State Health Department and Urban Local Bodies
Scheme Linkages	NUHM linked with AB-PMJAY and MJPJAY for hospitalization care
Digital Systems Used	RCH Portal, eSushrut

Source: NUHM Official Website, MoHFW, GoI.

3.2 Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

3.2.1 Introduction

The AB-PMJAY, launched in 2018 as part of the Ayushman Bharat initiative, is the largest publicly funded health insurance scheme in the world. It was designed to provide comprehensive financial protection to poor and vulnerable families against the burden of hospitalization costs. The scheme addresses a long-standing gap in healthcare financing by reducing catastrophic health expenditures and ensuring greater access to secondary and tertiary services. At its core, AB-PMJAY seeks to move the country toward universal health coverage by making quality healthcare accessible, affordable, and equitable for millions of households. The creation of AB-PMJAY was shaped by the limitations of earlier health insurance schemes, particularly RSBY. While RSBY made important strides in expanding coverage for families below the poverty line, it was constrained by capped financial coverage, exclusion of pre-existing illnesses, and limits on family size. Operational bottlenecks further reduced their effectiveness in reaching the poorest segments. These shortcomings highlighted the need for a more comprehensive model that would not only broaden the scope of coverage but also provide stronger governance and accountability mechanisms. Against this backdrop, AB-PMJAY was introduced in the 2018 Union Budget as a consolidated framework that aimed to integrate fragmented efforts and ensure that vulnerable households could seek hospital care without financial barriers.

3.2.2 Objectives and Structural Architecture

AB-PMJAY provides annual health coverage of up to Rs. 5 lakh per family per year for hospitalization, focusing on secondary and tertiary care. Beneficiaries were initially identified using the SECC 2011 database, covering 10.74 crore families. As per the recent updates from the

MoHFW, GoI, as indicate that the scheme now covers over 12.32 crore families, reflecting ongoing inclusion efforts, state-level verification, and regular updating of the beneficiary registry (MoHFW, 2024; PIB, 2024). Identification of poor urban households under AB-PMJAY has traditionally relied on the SECC-2011 deprivation criteria, which categorize vulnerable groups based on occupational, housing, and socio-economic deprivation. In urban contexts, this includes homeless populations, rag-pickers, domestic workers, street vendors, sanitation workers, migrants, and informal labourers who often lack formal documentation. Although states have gradually begun updating the beneficiary registry, the absence of a dedicated urban identification framework leads to inconsistencies in coverage. Many eligible households remain excluded due to mobility, informal settlements, or outdated records. Strengthening urban-specific identification strategies is essential for ensuring equitable inclusion. Unlike its predecessor schemes, AB-PMJAY does not impose restrictions on family size, age, or pre-existing conditions, which ensures broader inclusivity. The scheme is structured around a federated model, with the National Health Authority (NHA) responsible for policy direction, technology systems, and fraud prevention at the national level, while State Health Agencies (SHAs) handle implementation, hospital empanelment, and claims management at the state level. States are given flexibility to adopt an insurance-based model, a trust model, or a hybrid model, depending on their administrative capacities and institutional strengths.

The scheme also emphasizes portability, allowing beneficiaries to seek treatment at any empaneled hospital across the country. This design is particularly relevant for migrant workers, who frequently move between states in search of livelihoods and often fall through the cracks of local health systems. By ensuring nationwide access to empaneled hospitals, AB-PMJAY seeks to create a seamless experience for patients irrespective of where they live or work.

3.2.3 Benefits and Service Delivery

One of the most notable features of AB-PMJAY is the comprehensive coverage of services. The scheme includes over 1,500 medical and surgical packages spanning critical specialities such as cardiology, oncology, orthopedics, neurosurgery, and more. Treatment is provided on a cashless and paperless basis at empaneled hospitals, minimizing the bureaucratic burden on patients at the point of care. Over 28,000 public and private hospitals have been empaneled under the program, significantly expanding the availability of services across urban and rural areas. The inclusion of both public and private providers has greatly enhanced the reach of AB-PMJAY, but it has also raised questions about quality control and accountability[7]. The performance of private empanelled hospitals under AB-PMJAY has been mixed, reflecting both their strengths and

[7] While portability allows beneficiaries to seek treatment across states, in practice its effectiveness depends on interstate coordination and the willingness of private hospitals to comply with PM-JAY reimbursement norms.

persistent governance concerns. On one hand, private facilities significantly expand access to specialized and tertiary care, often delivering faster turnaround times, better infrastructure, and higher patient satisfaction. On the other hand, multiple independent audits and media assessments have documented issues such as selective admission of low-cost or simpler cases, refusal of complex patients, non-compliance with package rates, and instances of overcharging despite the cashless mandate. These variations highlight gaps in regulatory oversight and enforcement of service standards.

Public hospitals, meanwhile, continue to serve as the backbone for low-income groups but are constrained by overcrowding, staff shortages, and infrastructure limitations. This dual reality creates a structural imbalance in service delivery: while the private sector enhances capacity and technological capability, public facilities shoulder a disproportionate burden of high-risk, resource-intensive patients. Strengthening accountability across both sectors through systematic performance evaluations, stricter monitoring frameworks, and transparent reporting remains essential for ensuring that AB-PMJAY delivers equitable and high-quality care. AB-PMJAY is supported by a strong digital infrastructure, which is one of its defining features. The Beneficiary Identification System (BIS) ensures accurate verification of eligible households, thereby minimizing errors in inclusion and exclusion. The Hospital Empanelment Module (HEM) simplifies the onboarding process for healthcare facilities, while the Transaction Management System (TMS) facilitates timely submission and settlement of claims. In addition, specialized anti-fraud systems such as RADAR (Risk Assessment, Detection and Analytical Reporting) and FACTS (Fraud and Abuse Control Tracking System) are deployed to identify irregularities and strengthen accountability. This digital-first approach not only improves efficiency but also generates valuable data for monitoring trends, identifying gaps, and shaping policy decisions. The reliance on technology has been instrumental in enhancing transparency and curbing malpractices, although challenges persist in ensuring digital literacy among beneficiaries and compliance among hospitals.

Since its launch, AB-PMJAY has expanded significantly both in scale and scope. The number of covered households has increased from 10.74 crore families to over 14 crore families, translating into nearly 70 crore individuals. This expansion has been made possible through collaboration with state-level health schemes, which were either merged or aligned with AB-PMJAY. In 2024, the program took another significant step by extending coverage to all senior citizens above the age of 70, regardless of their income level. This measure acknowledged the disproportionate healthcare burden faced by the elderly and reinforced the scheme's commitment to equity.

Awareness campaigns such as 'Aapke Dwar Ayushman' have played a vital role in reaching marginalized communities and encouraging enrollment. These initiatives have been particularly

important in areas where health literacy remains low. However, despite growing awareness, utilization remains uneven, with urban and semi-urban populations showing greater participation compared to those in hard-to-reach or underserved regions.

3.2.4 Implementation of Mechanisms and Institutional Framework

The participation of both public and private service providers under AB-PMJAY has expanded service capacity but has also raised regulatory and governance concerns. A clear comparison between PM-JAY and MJPJAY helps illustrate how the two schemes complement each other in Maharashtra. While PM-JAY provides Rs 5 lakh annual coverage uniformly across the country, MJPJAY continues to offer additional state-specific benefits and covers certain procedures not included under PM-JAY. The overlap in empaneled hospitals and treatment packages often results in shared service delivery pathways, yet differences in eligibility criteria, documentation requirements, and administrative models create operational complexities. In Maharashtra's integrated system, both schemes run concurrently, but beneficiaries are routed depending on package availability and eligibility. Understanding this interplay is essential for assessing efficiency and coverage equity. Weak enforcement of quality standards, coupled with profit-oriented practices among some private facilities, has occasionally undermined the scheme's objectives. Reports of beneficiaries being charged despite the cashless mandate highlight persistent gaps in oversight and compliance. Public hospitals, though accessible, face issues of corruption, absenteeism, and inadequate infrastructure, which limit their ability to meet the rising demand. To ensure equitable outcomes, the scheme requires stronger regulatory frameworks, robust quality assurance mechanisms, and continuous monitoring. Building trust among beneficiaries is equally important, as awareness of entitlements and confidence in the system determine actual utilization. Maharashtra has integrated AB-PMJAY with the MJPJAY, resulting in a hybrid implementation model that combines both trust and insurance-based approaches. This integration has allowed for broader service coverage and more efficient claim management. Urban centres, particularly those with dense networks of empaneled hospitals, have benefited significantly from this arrangement. Awareness and documentation barriers continue to shape PM-JAY utilization patterns, particularly in metropolitan areas like the MMR. Many eligible households are unaware of their entitlements or assume that the scheme is only for rural populations. Migrant workers and slum residents frequently lack ration cards, Aadhaar-linked address proofs, or updated identification, leading to exclusion at the point of verification. Digital platforms such as BIS and AB-PMJAY mobile applications remain underused due to low digital literacy. Strengthening community-level outreach, especially through ASHAs, municipal health workers, and Non-governmental organizations (NGOs), is vital to improving scheme uptake among vulnerable groups.

The MMR region offers a unique case for AB-PMJAY implementation. The area is characterized by a dense concentration of super-speciality hospitals and advanced tertiary care facilities, which makes service availability higher than in most other regions. However, this does not automatically translate into equitable access. Slum residents and informal sector workers often face barriers due to a lack of documentation, limited digital literacy, and weak linkages with local health workers. Moreover, the dynamic nature of migration in MMR region complicates continuity of care. Although portability is a key feature of AB-PMJAY, tracking migratory populations and ensuring consistent access remain difficult. Another concern is the persistence of out-of-pocket expenses, particularly in private hospitals where compliance with scheme guidelines is inconsistent. These factors underline the need for stronger urban health governance and targeted interventions for vulnerable groups within metropolitan contexts.

Table 2: Key Features of AB-PMJAY

Feature	Description
Annual Cover	Rs. 5 lakh per family per year
Beneficiaries	10.74 crore SECC-based vulnerable families
Type of Care	Secondary and Tertiary hospitalization
Mode	Cashless and paperless
Portability	Services available across India
Network	25,000+ empanelled public & private hospitals

Source: AB-PMJAY Official Website, MoHFW, GoI

3.3 Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY)

3.3.1 Introduction

Healthcare accessibility and affordability have been long-standing concerns in Maharashtra, particularly for economically disadvantaged populations. To address these challenges, the Government of Maharashtra launched the MJPJAY, a state-run health insurance scheme designed to provide cashless medical services to underprivileged residents. By targeting those most vulnerable to catastrophic health expenditures, the scheme has emerged as a cornerstone of the state's social protection framework in healthcare.

The origins of MJPJAY can be traced back to the introduction of the Rajiv Gandhi Jeevandayee Yojana (RGJAY) in 1997, which sought to provide treatment for critical illnesses such as cardiac, renal, neurological, and cancer-related diseases. However, the limited scope and reach of this initiative soon revealed the need for a more comprehensive health insurance program. In 2012, the Maharashtra government launched the RGJAY in eight districts as a pilot initiative. Within a year, the scheme was expanded statewide, reflecting its acceptance and necessity. In 2017, the scheme was renamed Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY) to honor the pioneering social reformer Mahatma Jyotirao Phule, symbolizing the state's continued commitment to healthcare equity for marginalized populations.

3.3.2 Objectives and Structural Architecture

MJPJAY was conceptualized with the primary objective of improving access to quality healthcare for Below Poverty Line (BPL) and marginally Above Poverty Line (APL) families. Importantly, the scheme excludes white ration cardholders, thereby ensuring that benefits are directed toward the genuinely needy. By offering free hospitalization for surgeries, therapies, and consultations through a network of empaneled healthcare providers, MJPJAY addresses both access and affordability. The scheme is particularly significant for vulnerable families who otherwise face the risk of impoverishment due to medical expenses.

3.3.3 Benefits and Service Delivery

Under MJPJAY, beneficiaries are entitled to cashless treatment for 971 surgeries, therapies, and procedures across 30 specialized categories, including cardiology, oncology, neurology, and general surgery. Additionally, 121 follow-up packages are included to ensure continuity of care. Annual coverage is provided up to Rs. 1.5 lakh per family, with higher coverage of up to Rs. 2.5 lakh for specific high-cost procedures such as renal transplants in 2017. This broad coverage framework ensures that a wide spectrum of health needs is addressed, reducing out-of-pocket expenditure for poor households.

3.3.4 Implementation Mechanisms and Institutional Framework

The scheme is implemented by the SHAS, which coordinates with insurance providers and empaneled hospitals. Beneficiaries can access cashless services at network hospitals by presenting a valid identification, such as a yellow or orange ration card. Hospitals provide treatment without charging the patient, and claims are later settled by the insurance company with the hospital. This structure ensures that financial constraints do not prevent timely medical care. In 2018, MJPJAY was integrated with the AB-PMJAY to create a more comprehensive system for healthcare delivery. Through this merger, the treatment list was expanded to 996 under

MJPJAY and 1,209 under AB-PMJAY, with an increased coverage of Rs. 5 lakh per family per year. This strategic integration helped streamline healthcare delivery, avoid duplication of administrative efforts, and extend coverage to a broader population base.

A crucial factor in the relative success of MJPJAY has been its strong monitoring and evaluation framework. MJPJAY employs audits and quality checks to maintain service standards, yet these measures can be further detailed. Empaneled hospitals undergo periodic inspections for infrastructure adequacy, medical compliance, and ethical service delivery. Patient feedback and grievance redressal mechanisms are integral to these evaluations. Including specific indicators, audit frequency, and outcomes can strengthen confidence in the scheme. Rigorous quality monitoring ensures that both public and private hospitals provide consistent, high-standard healthcare services. Hospitals are required to meet specific empanelment criteria, including a minimum of 50 inpatient beds and adherence to ethical medical practices. Regular audits, quality checks, and beneficiary feedback mechanisms help in maintaining accountability and service standards. Periodic evaluation reports provide insights into utilization patterns, identify gaps, and guide policy refinements. Despite the integration of MJPJAY with AB-PMJAY, it is not always clear how these schemes operate together in the same empanelled hospitals. Both programs share infrastructure, yet administrative coordination and patient eligibility processes may differ. Some hospitals maintain separate counters or reporting lines, while others use unified platforms. Clarifying the operational linkages between state and national schemes is essential for understanding patient navigation and ensuring efficient service delivery. Streamlining this integration can reduce duplication and enhance the beneficiary experience, ultimately improving the accessibility and quality of care.

While state-level data suggests that millions of cases have received pre-authorization under MJPJAY (58 lakh between 2019-20 and 2024-25) and the number of surgeries under the scheme has grown substantially (from 6.03 lakh in 2019-20 to 10.25 lakh in 2023-24) in Maharashtra. The absence of disaggregated utilization statistics limits the ability to assess the scheme's reach and impact within MMR. Without such data, it is difficult to evaluate distributional equity, track high-cost procedure uptake, or identify geographic gaps in coverage. Transparent reporting of utilization by region would be valuable for monitoring, resource allocation, and policymaking under MJPJAY/AB-PMJAY in urban conglomerations such as the MMR region (The Times of India, 9 July 2025).

The implementation of MJPJAY in the MMR region is of particular importance due to the region's unique socio-economic and demographic dynamics. With a high concentration of urban poor, migrant workers, and slum populations, the MMR region presents significant challenges in healthcare access and equity. Empaneled hospitals in Mumbai, Thane, Navi Mumbai, Mira-Bhayandar, Kalyan-Dombivli, and Vasai-Virar have played a critical role in extending scheme benefits to millions of residents. While MJPJAY has extended services to

core urban areas, health access in suburban or newly urbanized zones remains underexplored. Emerging towns and peri-urban settlements often face shortages of empaneled hospitals and specialized care facilities. The uneven distribution of healthcare infrastructure may limit cashless treatment accessibility for these populations. Addressing these gaps requires targeted expansion of empaneled facilities and mobile health initiatives. Recognizing suburban healthcare needs is crucial for equitable urban health coverage. Patient referral mechanisms within MJPJAY, including movement from primary care units to tertiary hospitals, are critical yet under-documented. Effective coordination between Urban Health Posts, primary care centres, and specialized empaneled hospitals ensures continuity of care. Standardized referral protocols, follow-up packages, and tracking systems can prevent treatment delays and reduce financial or logistical burdens on patients. Understanding these referral pathways is vital for evaluating the efficiency of service delivery across the MMR region.

The presence of both public institutions, such as King Edward Memorial (KEM) Hospital, Lokmanya Tilak Municipal General (Sion) Hospital, and Grant Government Medical College and Sir J. J. Group of Hospitals, along with large private hospitals, ensures that a wide range of services are available. However, awareness gaps and uneven distribution of empaneled hospitals across urban and peri-urban areas remain persistent challenges. Strengthening the scheme's reach in the MMR region is therefore central to achieving its broader goal of healthcare.

Table 3: Key Features of MJPJAY

Feature	Description
Launch Date	July 2, 2012
Renamed as MJPJAY	April 1, 2017
Coverage Amount	Rs 1.5 lakh per family per year; Rs. 2.5 lakh for renal transplants in 2017; Recent Update 2024 – Integrated AB-PMJAY and MJPJAY (Rs. 5 Lakh)
Specialized Categories	30 (e.g. Cardiology, Oncology, Neurology)
Integration with PMJAY	April 1, 2020
PMJAY Coverage Amount	Rs. 5 lakh per family annually
Empanelled Hospitals	1792 (As of 2024)
Implementation Agency	State Health Assurance Society (SHAS) – Integrated AB-PMJAY and MJPJAY

Chapter - 4

Effective Public Health Initiatives and Success Stories

The MMR region faces the dual challenge of addressing the needs of a rapidly growing urban population while tackling persistent health burdens such as tuberculosis, maternal and child health vulnerabilities, and lifestyle-related diseases. In this context, national health missions and state-specific schemes such as the NUHM, AB-PMJAY and MJPJAY, and urban innovations like HWCs and Aapla Dawakhana clinics have shaped the public health delivery landscape. These initiatives not only extend essential services but also demonstrate success stories of inclusion, accessibility, and affordability in the urban setting.

4.1 Strengthening Primary Healthcare: HWCs and Aapla Dawakhana Clinics

Health and Wellness Centre (Urban Ayushman Aarogya Mandir, Panvel)

In the MMR region, the establishment of HWCs launched under Ayushman Bharat Program, was designed to move beyond curative services and provide comprehensive primary care, including non-communicable disease (NCD) screening, maternal-child health, and health promotion activities. In cities like Mumbai, Thane, and Navi Mumbai, HWCs have become crucial in decentralizing care and reducing the patient load on tertiary hospitals.

Complementing HWCs, the Aapla Dawakhana initiative of the BMC has become a model of accessible urban healthcare[8]. These clinics, often situated in dense slum clusters, provide free consultations, medicines, and diagnostic services. Importantly, Aapla Dawakhana acts as an urban extension of NUHM goals, ensuring equitable access for vulnerable populations such as migrant workers and the urban poor.

Aapla Dawakhana – Mumbai Suburban

[8] The Aapla Dawakhana clinics, formally known as the *Hinduhridaysamrat Balasaheb Thackeray Aapla Dawakhana Yojana* were inaugurated by the BMC in October 2022.

Their function is closely aligned with the preventive and promotive framework of HWCs, making them not just stand-alone facilities but a vital part of the larger NHM ecosystem. The success of Aapla Dawakhana lies in bridging the last-mile gap, transforming the principle of "healthcare for all" into a daily reality for residents in MMR region.

4.2 Tuberculosis Control and Linkages with Schemes

The National Tuberculosis Elimination Programme (NTEP), implemented rigorously in Mumbai and adjoining cities, has integrated itself with broader health schemes to maximize impact. For instance, TB patients receive free diagnostics and treatment under NTEP, but they also benefit from financial risk protection through MJPJAY and PM-JAY when hospitalization is required for complications[9]. Even though some challenges such as patient-side barriers (stigma, cost, travel), and limited linkages with primary care and insurance services remain areas for further strengthening. The Nikshay Poshan Yojana, providing direct benefit transfers to TB patients for nutritional support, has been scaled effectively in MMR region. Furthermore, the financial and nutritional support not only improves treatment adherence but also reduces catastrophic health expenditure. Moreover, Aapla Dawakhana and HWCs play a frontline role in early TB case detection, especially in high-burden slum pockets, and in linking patients to higher facilities when advanced care is needed. This interconnection of grassroots initiatives with national financial protection schemes represents integrated public health governance.

'TB Harega, Desh Jeetega' Campaign

4.3 Expanding Access through Health Insurance: AB-PMJAY and MJPJAY

Health insurance schemes like AB-PMJAY and MJPJAY have had a tangible impact in the MMR region. Private and public hospitals in Mumbai, Thane, and Navi Mumbai are empanelled under these schemes, enabling low-income families to access costly secondary and tertiary care without financial burden.

[9] The Government of India launched the national campaign *"TB Harega, Desh Jeetega"* in September 2019 to accelerate progress toward eliminating tuberculosis by 2025. The campaign emphasizes patient-centric care, nutritional support, private sector engagement, and social mobilization, aligning with stepping in towards TB elimination in the MMR region.

An important initiative is the integration of the MJPJAY with the AB-PMJAY. The scheme is operated and monitored by the SHAS, which has introduced the concept of Aarogya Mitra at every empaneled hospital. These facilitators assist patients and their families with the entire process of availing scheme benefits. From guiding them to the designated help desk, completing KYC formalities, and filling out forms, to ensuring smooth enrollment, the Aarogya Mitra acts as a crucial link between the patient and the hospital. To further reduce delays, SHAS has also established a telephonic approval mechanism that allows for quick authorization of treatments. This has significantly improved the efficiency of service delivery, enabling patients to access timely, cashless healthcare. Such innovations demonstrate how the integration of schemes, supported by patient-friendly mechanisms, strengthens the overall accessibility and responsiveness of public health programs.

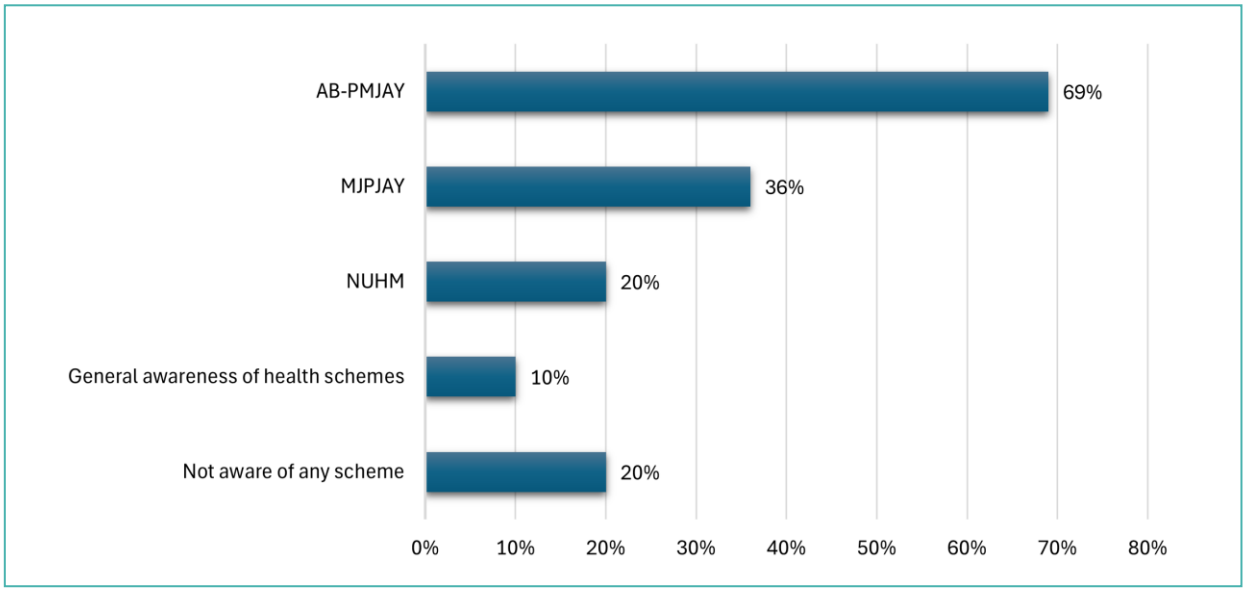
Furthermore, the convergence of Maharashtra's MJPJAY with AB-PMJAY has further expanded the coverage net, particularly benefiting migrants and vulnerable urban groups who earlier remained uninsured. This expansion also complements the preventive care at HWCs and Aapla Dawakhana, creating a continuum where citizens first access primary care locally, and if needed, transition into higher levels of care under the financial shield of national and state health insurance. The public health initiatives demonstrate that success lies not only in launching schemes but in building interconnections between them. Aapla Dawakhana extends NUHM's vision of urban primary healthcare, HWCs bring Ayushman Bharat's comprehensive model closer to citizens, TB programs integrate with financial protection schemes to ensure continuity of care, and AB-PMJAY and MJPJAY expand access to tertiary services without financial distress. Together, these efforts have created a network of public health interventions that respond to the challenges of an urban megaregion like the MMR region.

Chapter - 5

Analysis of Utilization of the Health Schemes in the MMR Region

This chapter focuses on the analysis of the utilization of government health schemes in the MMR region, examining awareness, enrollment, access, and the challenges faced by urban citizens. The survey was conducted across 1,900 households distributed in key urban clusters: Mumbai (400 households), Thane (300), Kalyan-Dombivli (300), Navi Mumbai (300), Panvel (300), Mira-Bhayandar (150) and Vasai-Virar (150). To supplement the quantitative findings, Focus Group Discussions (FGDs) were conducted in selected localities, slum settlements, and community clusters within these cities. These discussions captured the lived realities of residents, particularly those from vulnerable and low-income groups, offering valuable insights into their perceptions, experiences, and expectations regarding health schemes. The collective survey findings of the MMR region showed that awareness of the AB-PMJAY is the highest among all government health schemes. 69% of respondents reported familiarity with AB-PMJAY, making it the most widely recognized scheme. MPJAY ranked second with 36% awareness, reflecting its moderate reach despite being state-led. In comparison, only 20% of respondents indicated awareness of the NHM, showing its relatively limited visibility in urban areas. Additionally, 10% of respondents reported only a general awareness of health schemes, without identifying any by name. Notably, 20% of respondents were not aware of any health scheme at all, highlighting significant gaps in outreach and communication efforts across MMR.

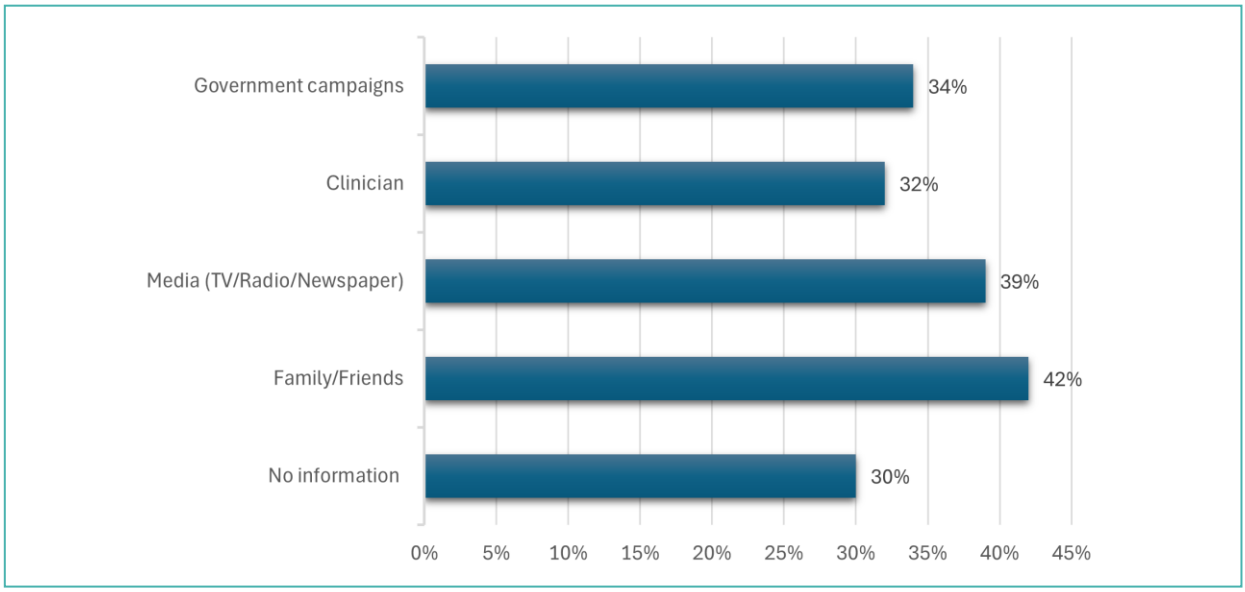
Chart 1: Citizen Awareness of Health Schemes



However, it is important to note that while awareness of NUHM appears low, many citizens are in fact benefiting from services provided under these frameworks, such as AYUSH HWCs, urban primary health clinics, or outreach camps, without necessarily recognizing them as part of the NUHM. This gap between service utilization and scheme-level awareness highlights a positive foundation already in place, and with better communication and branding, these urban health initiatives can become more visible and better understood by the communities they serve.

The collective survey findings of the MMR region showed that the source of initial awareness plays a significant role in shaping how individuals engage with health schemes. Family and friends emerged as the strongest channel of information, with 42% of respondents reporting that they first learned about the schemes through these personal networks. Media platforms, including television, radio, and newspapers, accounted for 39%, reflecting the continued relevance of traditional communication modes. Government-led campaigns reached 34% of respondents, while 32% reported receiving information from clinicians. Notably, 30% of respondents reported that they had not received any information about the schemes, highlighting a persistent gap in outreach and the need for more inclusive communication strategies, particularly in underserved communities across the MMR region.

Chart 2: Source of Awareness on Health Schemes

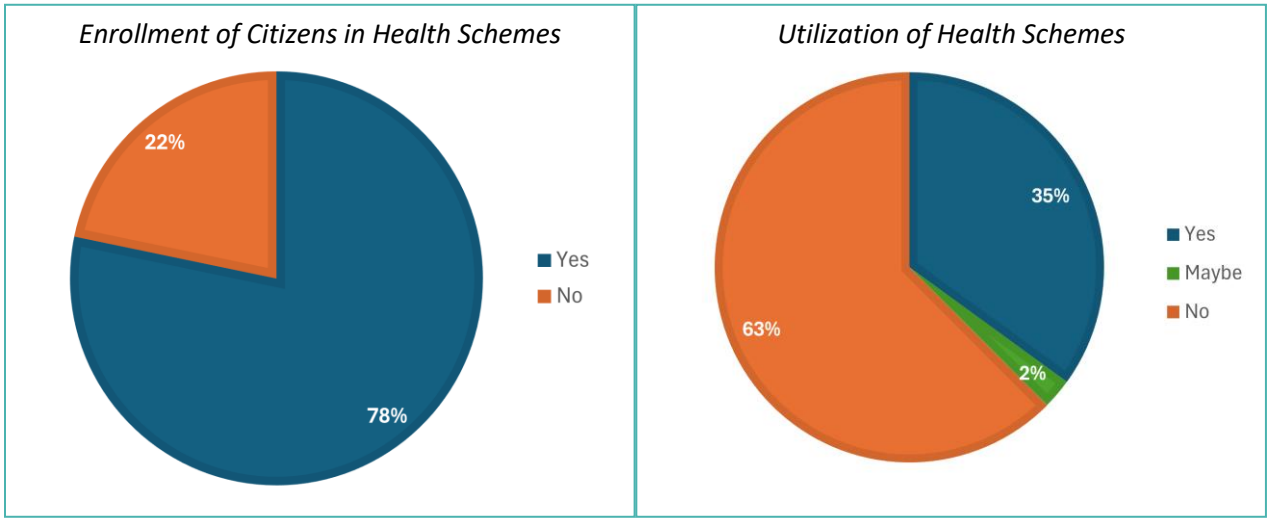


5.1 City-wise Enrollment and Utilization of Health Schemes in the MMR Region

5.1.1 Enrollment and Utilization of Health Schemes in Mumbai

In Mumbai, 78% of citizens reported being enrolled in health schemes, while 22% were not. However, utilization is considerably lower, with only 35% of respondents stating they had availed healthcare services under the schemes, 2% uncertain, and 63% saying they had not availed them. The surveys were conducted in areas such as Goli Bar in Khar, Behram, Navpada, Maharashtra Nagar, JVPD area, RTO Colony, Kherwadi, and Bhandup. These localities bring together slum settlements and mixed-income residential clusters, reflecting Mumbai's complex social and spatial composition. The high enrollment figures suggest widespread awareness of schemes, yet the lower utilization points to barriers of either accessibility, procedural clarity, or existing reliance on private healthcare facilities. The data indicates that while citizens are aware and enrolled, the transition to actual usage of scheme-linked services remains limited.

Chart 3: Enrollment and Utilization of Health Schemes in Mumbai

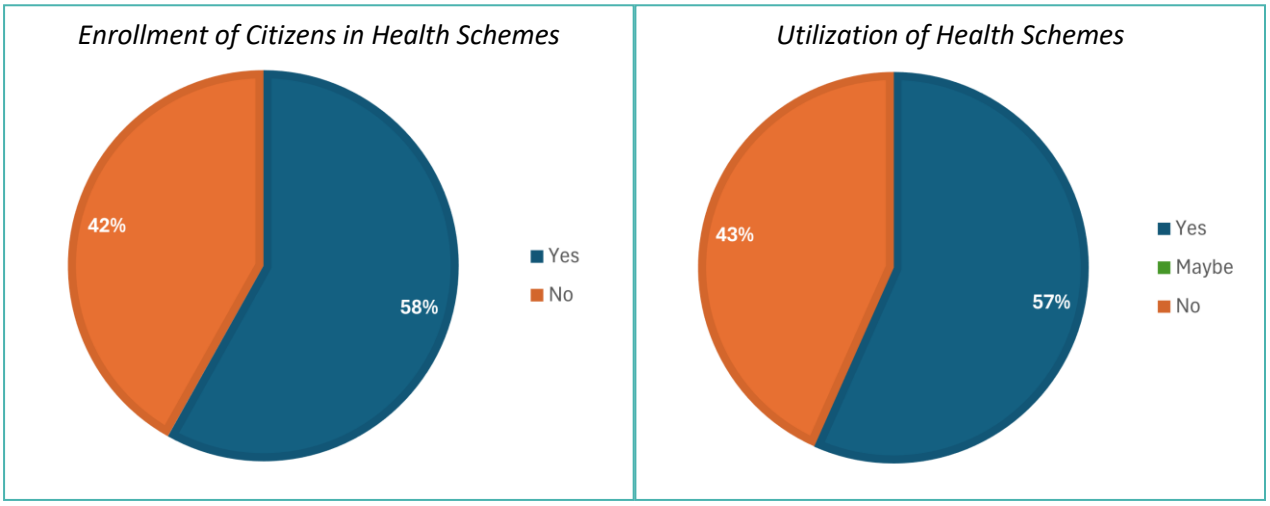


5.1.2 Enrollment and Utilization of Health Schemes in Thane

In Thane, 58% of citizens reported being enrolled in health schemes, while 42% stated they were not. Utilization of health schemes here is stronger, with 57% confirming they had availed services under these schemes, while 43% said they had not. The survey covered areas such as Bapuchi Nagar, Rehmat Nagar, and Friend Circle area, which are primarily slum-dominated, alongside references to middle and lower-middle-class neighbourhoods such as Panchpakhadi, Vartak Nagar, and Manpada. These areas illustrate Thane's diverse social fabric, where low-income households

show greater reliance on subsidized healthcare, while middle-class clusters may continue to depend on private facilities. The survey findings suggest that once enrolled, a significant proportion of Thane's citizens actively utilize scheme benefits, reflecting a different usage trend compared to Mumbai.

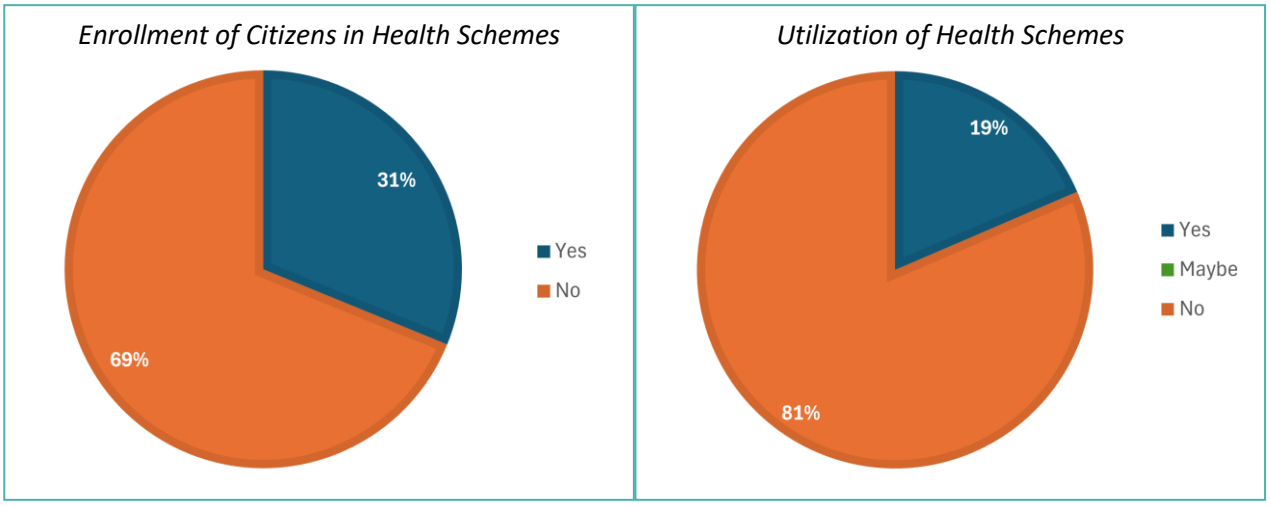
Chart 4: Enrollment and Utilization of Health Schemes in Thane



5.1.3 Enrollment and Utilization of Health Schemes in Kalyan-Dombivli

In Kalyan-Dombivli, 31% of citizens reported that they were enrolled in government health schemes, while 69% stated that they were not enrolled. However, when it comes to actual utilization, the response was significantly lower. Only 19% of respondents confirmed that they had availed treatment through these schemes, whereas 81% said they had not been able to use them. The surveys were conducted in Siddharth Nagar and Netivali, both of which have visible slum clusters.

Chart 5: Enrollment and Utilization of Health Schemes in Kalyan-Dombivli

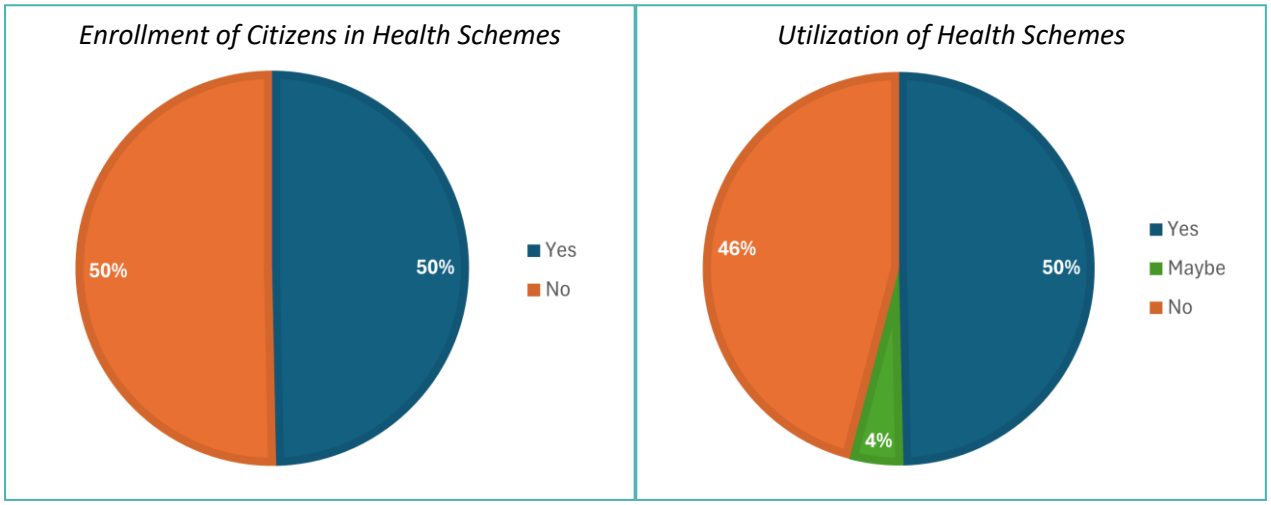


In addition, areas close to major railway stations also represent similar community patterns. Around Kalyan station, localities such as Patri Pul and nearby chawls, and around Dombivli station, areas like old Dombivli area, Tilak Nagar and Gaondevi Mandir area, where residents were enrolled in government schemes. The data showed that the majority of citizens in Kalyan-Dombivli have not been able to avail treatment under these schemes.

5.1.4 Enrollment and Utilization of Health Schemes in Navi Mumbai

In Navi Mumbai, 50% of citizens reported enrollment in government health schemes, while 50% were not enrolled. When asked about utilization, 50% confirmed that they had availed treatment through these schemes, 46% said they had not, and 4% were not sure. The surveys were conducted in Seawood, CBD Belapur and Nerul. These locations represent a combination of planned residential sectors and nearby slum clusters. The Turbhe Naka and Juhugaon near Vashi are known pockets with slum communities, where enrollment in government schemes is visible, and usage of scheme-based treatment is relatively good. In contrast, residents in the more developed sectors of Navi Mumbai often show lower reliance on these schemes, even if enrolled. The data highlights that while enrollment and utilization rates are balanced at the city level, the actual use of schemes tends to be concentrated in areas with dense slum settlements and working-class households.

Chart 6: Enrollment and Utilization of Health Schemes in Navi Mumbai

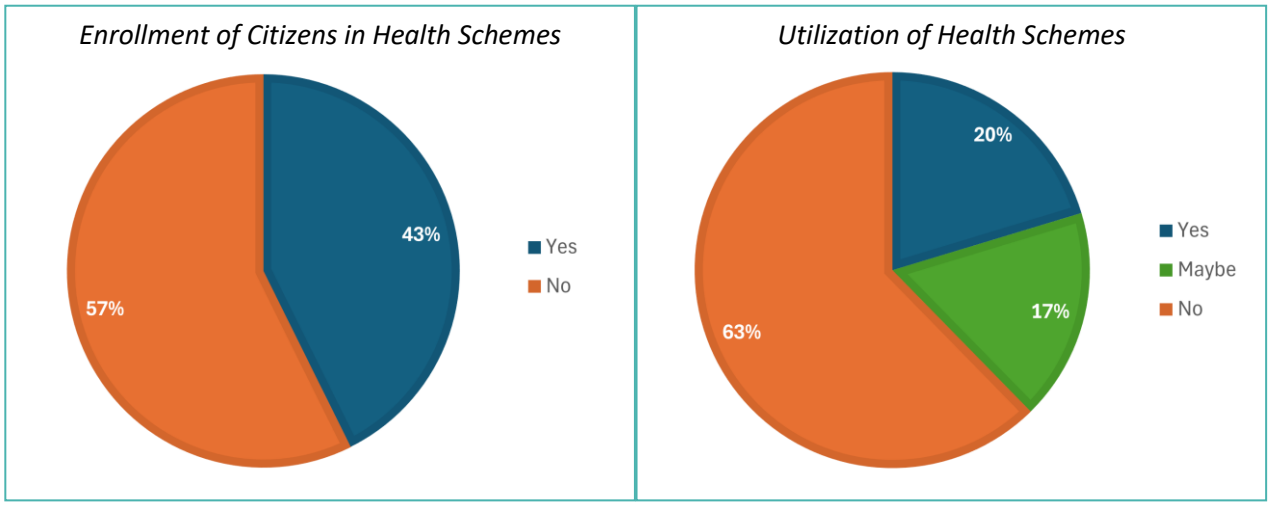


5.1.5 Enrollment and Utilization of Health Schemes in Panvel

In Panvel, 43% of citizens reported that they were enrolled in government health schemes, while 57% stated that they were not enrolled. When asked about utilization, 20% confirmed that they had availed treatment through these schemes, 63% said they had not, and 17% were not sure.

The survey was conducted across New Panvel, Old Panvel, Khandeshwar, and nearby slum settlements such as Sukapur. In the slum pockets, awareness and enrollment in schemes were more visible, as families tend to depend on subsidized healthcare. In contrast, in relatively planned areas such as New Panvel, reliance on government schemes was lower.

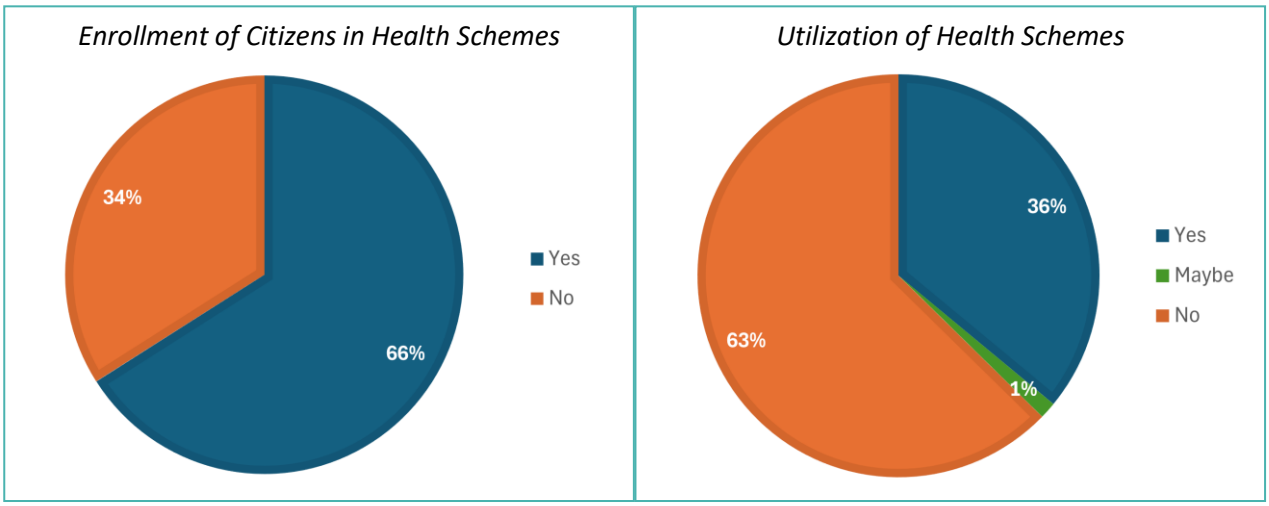
Chart 7: Enrollment and Utilization of Health Schemes in Panvel



5.1.6 Enrollment and Utilization of Health Schemes in Mira-Bhayandar

In Mira-Bhayandar, surveys were conducted in localities such as Bhayandar East and West, Mira Road, Silver Park area, and slum or community settlements near the station. 66% of citizens reported that they were enrolled in government health schemes, while 34% stated that they were not enrolled. When asked about utilization, 36% confirmed that they had availed treatment through these schemes, 63% said they had not, and 1% were not sure.

Chart 8: Enrollment and Utilization of Health Schemes in Mira-Bhayandar



5.1.7 Enrollment and Utilization of Health Schemes in Vasai-Virar

In Vasai–Virar, areas such as Koliwada and adjoining settlements were surveyed. The findings showed that 47% of citizens were enrolled in government health schemes, while 53% were not enrolled. In terms of utilization, only 28% had availed healthcare services through these schemes, whereas 72% had not. This points to a considerable gap between enrollment and actual use of benefits.

Chart 9: Enrollment and Utilization of Health Schemes in Vasai-Virar

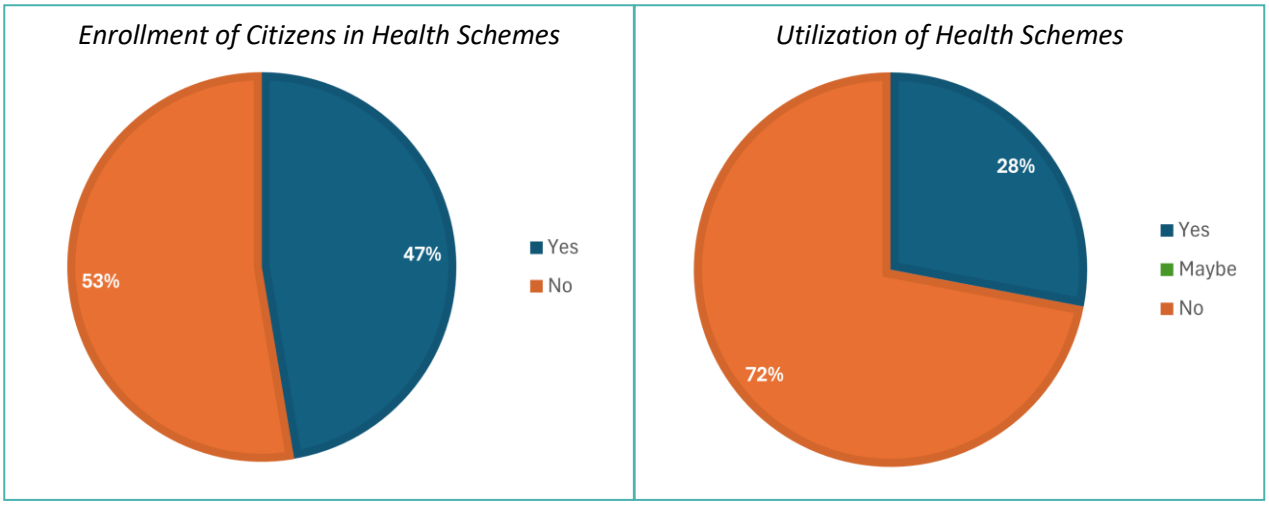


Table 4: City-wise Enrollment and Utilization of Health Schemes (Summary)

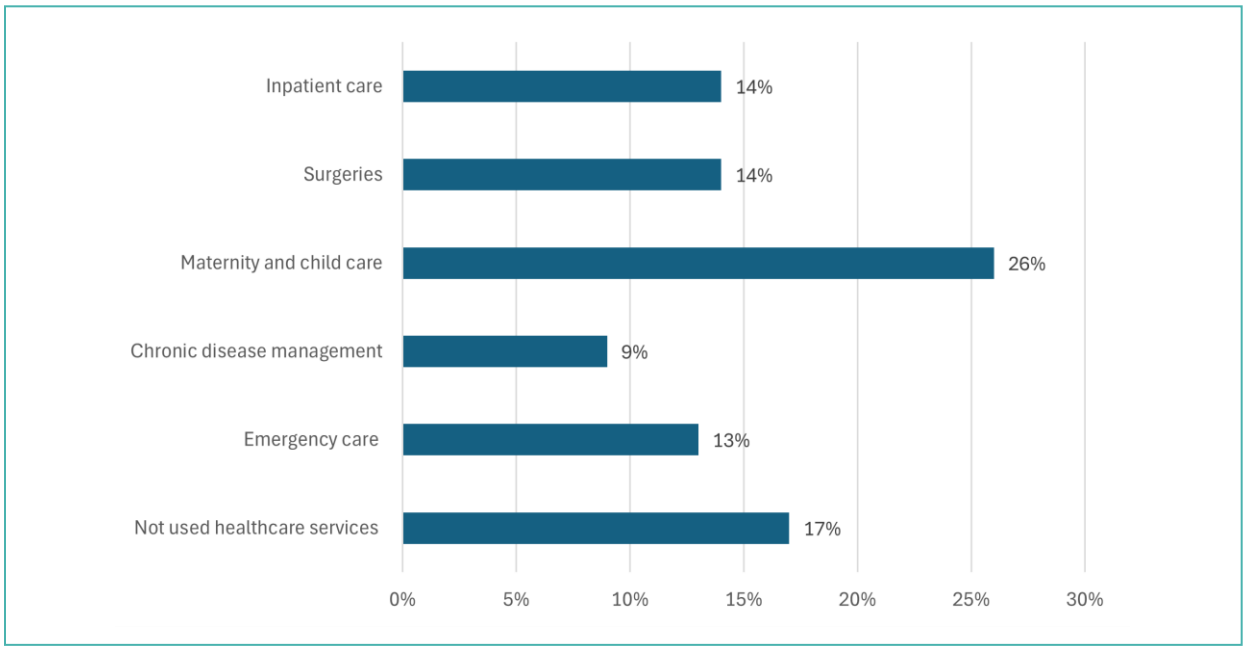
City	Enrolment		Utilization			Observation
	Yes	No	Yes	Maybe	No	
Mumbai	78 %	22%	35%	2%	63%	High enrollment but majority unable to use schemes.
Thane	58%	42%	57%	0%	43%	More than half are enrolled and actively using services, indicating better access and functional scheme linkages.
Kalyan-Dombivli	31%	69%	19%	0%	81%	Very low enrollment and utilization; 4 out of 5 residents not availing.

City	Enrolment		Utilization			Observation
	Yes	No	Yes	Maybe	No	
Navi Mumbai	50%	50%	50%	4%	46%	Balanced enrollment and utilization.
Panvel	43%	57%	20%	17%	63%	Enrollment moderate, but confusion is high with many unsure about utilization.
Mira-Bhayandar	66%	34%	36%	1%	63%	Enrollment good but actual usage much lower, showing awareness gap.
Vasai-Virar	47%	53%	28%	0%	72%	Less than half enrolled, and majority unable to access benefits.

5.2 Citizen Experience in Accessing Health Services and Schemes

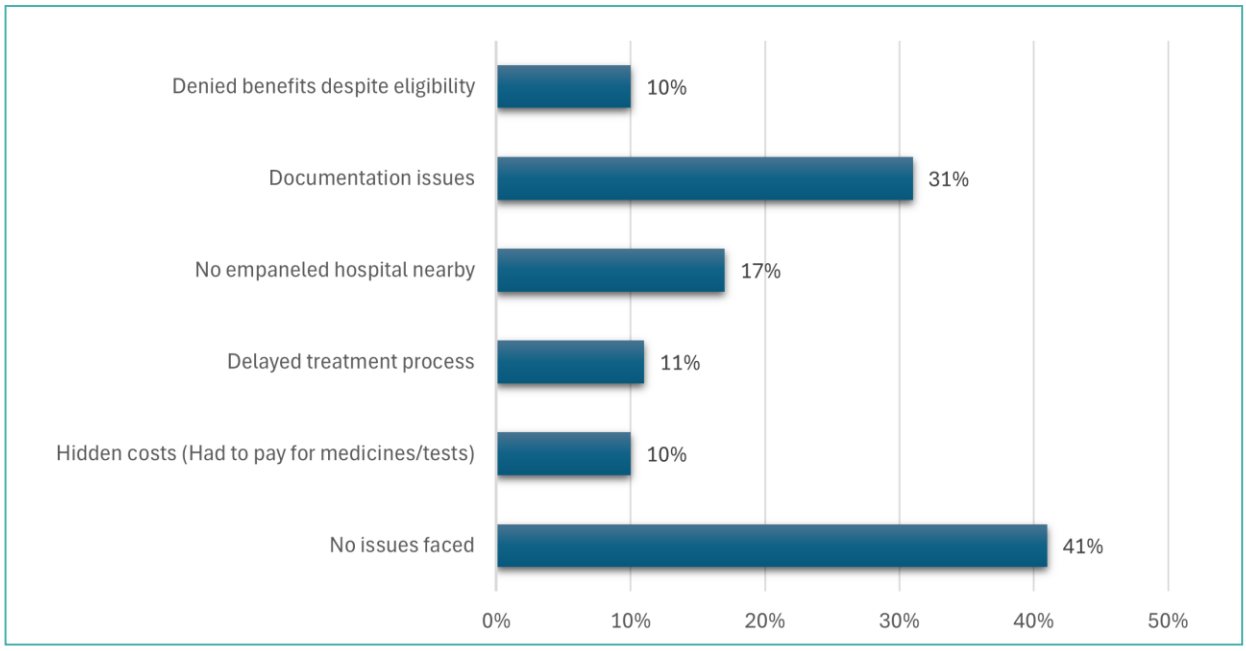
The collective survey findings of the MMR region showed that while awareness and enrollment are important, the real measure lies in how people use the schemes. The data showed that 26% of respondents availed maternity and childcare services, indicating strong utilization of this service. Inpatient care at 14% and surgeries at 14% were also commonly accessed, pointing to moderate use for hospital-based treatments. Emergency care was used by 13%, showing that schemes are effectively supporting urgent medical needs as well. However, only 9% accessed services for chronic disease management, which is relatively low given the urban health context. This suggests that long-term care remains underutilized. Furthermore, 17% of respondents did not use any services at all. This could reflect either a lack of need or barriers in access and awareness. Collectively, these findings suggest that while health schemes in the MMR region are meeting needs in maternity and acute care, their reach in chronic and preventive health services needs strengthening. A more targeted strategy could help bridge this gap and ensure more equitable utilization.

Chart 10: Types of Healthcare Services Availed under Schemes



The survey findings of the MMR region also highlighted the challenges faced by beneficiaries while accessing health schemes. The most common issue was documentation-related problems, reported by 31% of participants. This was followed by the lack of nearby empaneled hospitals at 17% and the denial of benefits at 10%.

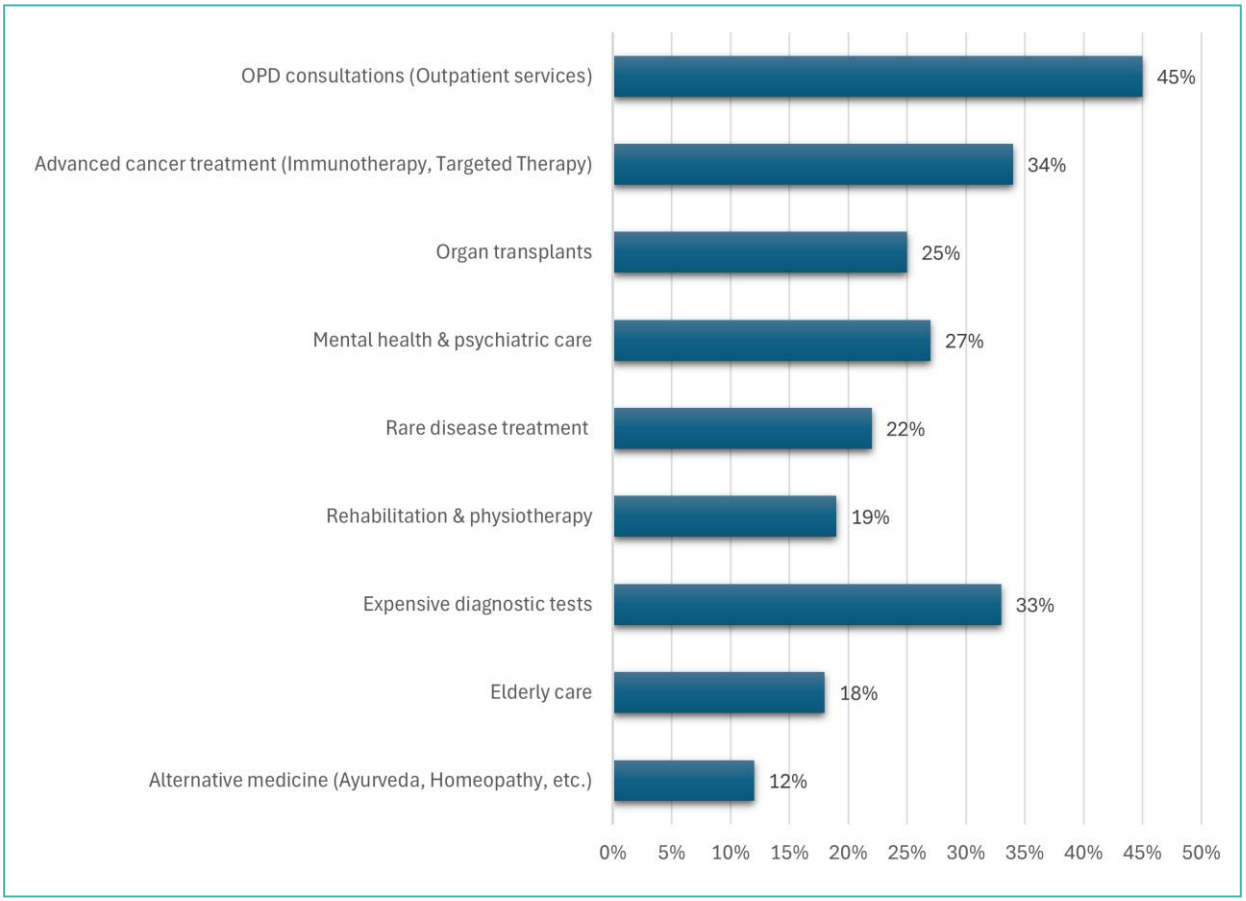
Chart 11: Challenges in Availing Health Scheme Treatment



Some respondents also mentioned experiencing delayed treatment at 11% and hidden costs at 10%, such as having to pay for medicines or diagnostic tests. However, it is worth noting that 41% of respondents said they did not face any issues at all, indicating that for many beneficiaries, the process worked smoothly. While the challenges highlight areas where coordination and implementation can be improved, the large number of respondents with positive experiences showed that the schemes are functioning well at a significant level.

Alongside utilization patterns and challenges, the collective survey findings of the MMR region also captured citizens' views on expanding the scope of services under government health schemes. The most frequently requested addition was outpatient care, reported by 45% of respondents, reflecting the need for accessible day-to-day medical consultations. A considerable number of respondents also highlighted the need for advanced cancer treatment (34%), mental health services (27%), and organ transplants (25%), indicating growing awareness of both chronic and critical care requirements. Other suggestions included rare disease treatments (22%), rehabilitation and physiotherapy (19%), expensive diagnostic tests (33%), and elderly care services (18%).

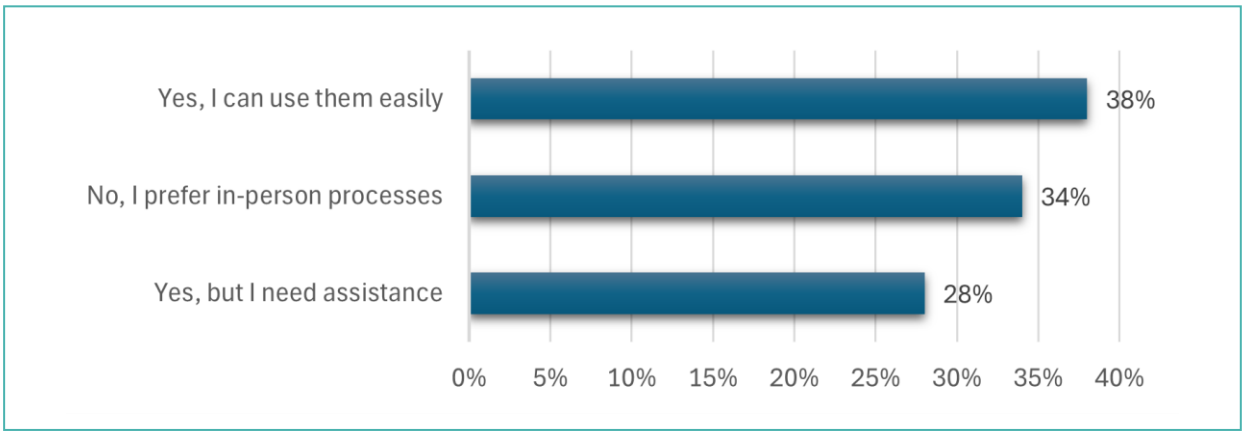
Chart 12: Preferred Additional Healthcare Services



These preferences highlight the importance of strengthening outpatient and primary healthcare delivery through platforms such as the National Health Mission's HWCs and Mumbai's Aapla Dawakhana network. Expanding their capacity would ensure that everyday healthcare needs are effectively met. At the same time, secondary and tertiary services continue to be provided under flagship insurance-based schemes such as AB-PMJAY and MJPJAY. Collectively, this reflects a public demand for a more comprehensive, long-term approach to health coverage that integrates preventive, primary, and advanced care.

Building on the findings around utilization and service needs, the collective survey results from the MMR region also highlighted the behavioral and digital dimensions of accessing government health schemes. Understanding how people engage goes beyond enrollment; it includes awareness, preferred modes of access, and information channels. The survey reveals varied levels of digital comfort among citizens; 38% reported being able to independently navigate scheme websites and complete registrations, 28% could do so with some assistance, while 34% preferred in-person processes over digital methods.

Chart 13: Digital Platform Preferences for Health Scheme Access

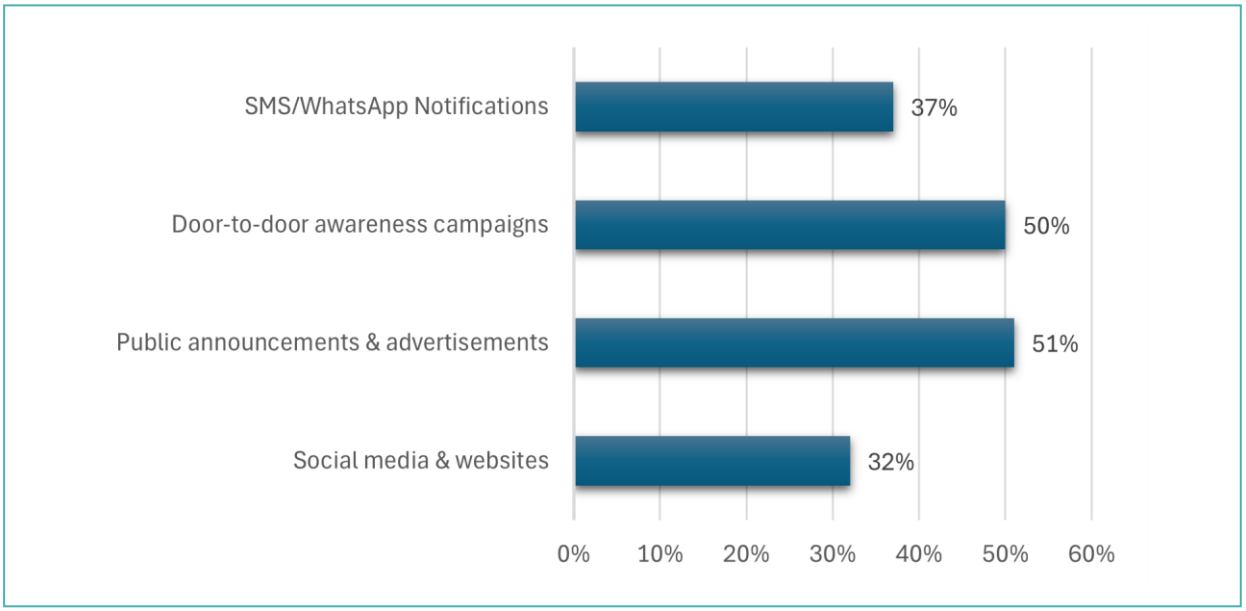


These patterns highlighted that while digital platforms are increasingly relevant, ensuring inclusivity requires strengthening both online and offline access points. To understand how citizens prefer to stay informed, the survey also explored communication preferences across the MMR region.

Traditional outreach methods emerged as the most trusted, with 51% of respondents favoring public announcements and advertisements, while 50% preferred door-to-door awareness campaigns. These channels remain particularly effective in areas with lower digital literacy. At the same time, 37% of people expressed a preference for receiving information

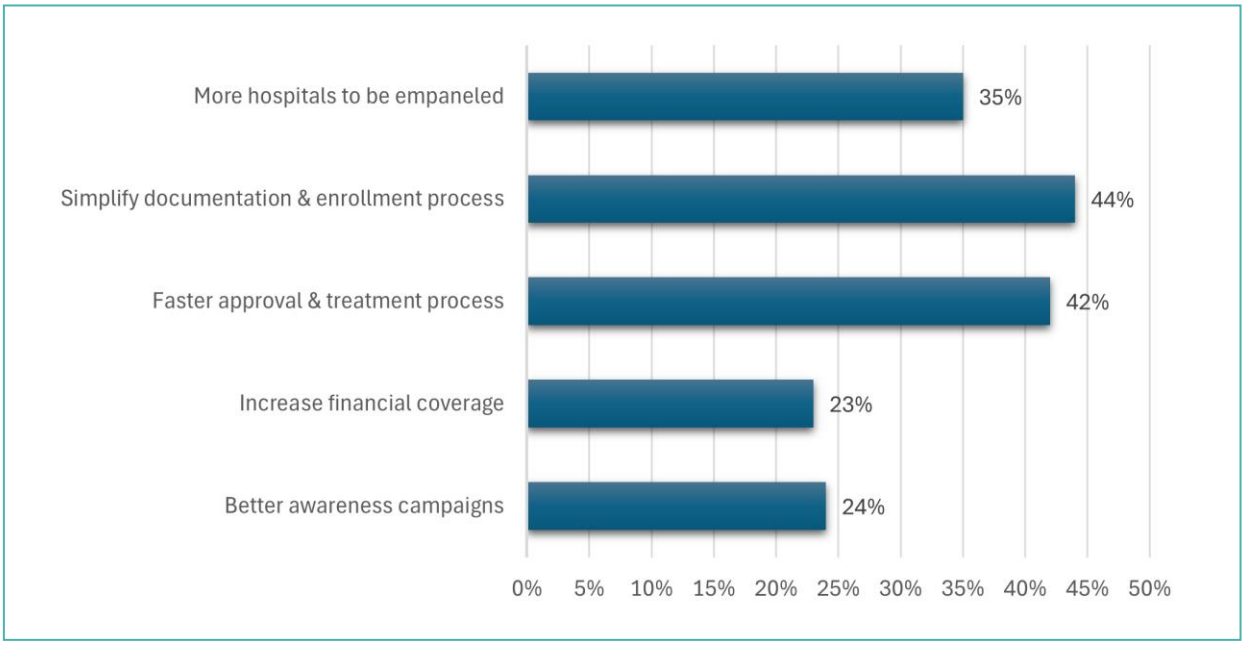
through SMS or WhatsApp, and 32% leaned towards social media and websites. Taken together, these findings suggest that the most effective communication strategy would be one that blends high-reach traditional methods with modern digital tools, ensuring that information is delivered in ways that are both accessible and familiar to all sections of the population.

Chart 14: Citizen Preferences for Receiving Health Scheme Information



Beyond communication preferences, citizens also shared several practical suggestions on how government health schemes in the MMR region could function more effectively. The most common recommendation was to simplify documentation and enrollment processes, highlighted by 44% of respondents. Many also stressed the need for faster approvals and treatment timelines, cited by 42%, reflecting concerns about delays in accessing care. Another significant suggestion was to empanel more hospitals, noted by 35%, so that beneficiaries would not need to travel long distances to receive treatment. Additionally, respondents underlined the importance of increasing financial coverage, mentioned by 23%, and strengthening awareness campaigns, highlighted by 24%, to ensure more citizens know about the schemes and how to make use of them. Taken together, these insights provide a grounded perspective on what people expect from public health schemes and how they envision them becoming more responsive, accessible, and impactful.

Chart 15: Citizen Suggestions to Enhance Health Schemes



The survey findings from the MMR region provided useful evidence to assess the three hypotheses. The first hypothesis, that awareness and accessibility significantly influence the utilization of government health schemes, is clearly proved as the data shows citizens use schemes more when information is accessible and processes are simple. The second hypothesis, that socio-economic status and geographic location affect utilization, is only partially proved. While geographic differences across the region are visible, the influence of socio-economic status is less evident and requires further depth. The third hypothesis, that the perceived quality of healthcare services impacts beneficiaries' willingness to enroll and utilize schemes, is strongly proved, as reflected in citizens' suggestions to simplify procedures, empanel more hospitals, and improve service timelines.

5.3 Strategies to Increase Health Scheme Utilization in MMR Region

5.3.1 Awareness and Behavioral Change [Information, Education and Communication (IEC) & Behavior Change Communication (BCC)]

Targeted campaigns should raise awareness about scheme benefits and encourage actual utilization, not just enrollment. Community health workers, Aarogya Mitras, NGOs, and local influencers can engage citizens directly, using multilingual materials, public announcements, social media, and community events. Success stories and practical guidance will help overcome

behavioral barriers such as fear of documentation, hidden costs, or delays, and promote preventive care and regular check-ups.

5.3.2 Improving Access and Service Delivery

Expanding the network of empaneled hospitals and clinics, simplifying documentation, and fast-tracking approvals will reduce barriers to care. Strengthening primary and outpatient services through HWCs and networks like Aapla Dawakhana ensures citizens can access routine and preventive care conveniently, decreasing reliance on tertiary facilities for minor services.

5.3.3 Expanding Scope of Services

Schemes should cater to both routine and specialized care, including outpatient services, chronic disease management, cancer treatment, mental health services, organ transplants, rehabilitation, and elderly care. Aligning services with citizen preferences improves relevance and utilization while addressing gaps in preventive and long-term care.

5.3.4 Leveraging Digital Platforms and Communication Channels

Digital tools should facilitate enrollment, service access, and follow-ups while remaining inclusive. A blended approach, including online platforms, SMS, WhatsApp, social media, and traditional methods like public announcements and door-to-door awareness campaigns ensure broad outreach. Notifications and reminders help citizens use timely services, while dashboards track utilization patterns in real time.

5.3.5 Monitoring and Feedback

Regular feedback, surveys, and real-time dashboards help identify bottlenecks and low-utilization areas. Continuous monitoring allows adjustments in awareness campaigns, service expansion, and digital outreach, ensuring interventions remain responsive and effective.

5.3.6 Scaling and Integration

Successful strategies should be scaled across all ULBs in the MMR region, integrating primary, preventive, and tertiary services. Peer networks, community engagement, and data-driven planning will enhance uptake, reduce inequities, and strengthen the overall impact of health schemes.

5.4 Roadmap for Scaling Interventions in the MMR Region

i. Start with awareness campaigns and IEC activities, targeting low-utilized services.

ii. Follow up with BCC strategies to address behavioral barriers, using peer networks and community engagement to encourage utilization.

iii. Improve access by expanding hospital empanelment, simplifying documentation, and introducing fast-track service mechanisms.

iv. Strengthen primary and outpatient care, ensuring that day-to-day health needs are met effectively through existing networks.

v. Expand specialized and preventive health services in response to citizen demand, focusing on chronic care, mental health, cancer, and elderly care.

vi. Leverage digital platforms and blended communication channels to provide inclusive access and timely information.

vii. Monitor utilization and feedback continuously, adapting interventions based on real-time data and citizen input.

This roadmap emphasizes a scalable approach to initiate campaigns, address access barriers, expand services, leverage digital and traditional communication, and embed real-time feedback. If implemented systematically across the MMR region, these measures can transform enrollment into meaningful, equitable healthcare access for all.

Chapter - 6

Health Infrastructure and Emerging Public Health Challenges in the MMR Region

The MMR region spans a coordinated network involving the Public Health Department, the Directorate of Medical Education and Research (DMER), and ULBs such as Mumbai, Thane and Navi Mumbai**.** This layered structure seamlessly links tertiary institutions, municipal facilities, and community outreach mechanisms, reinforced by participation in both state and national health schemes.

6.1 Institutional Framework and Tertiary Care

Tertiary healthcare is anchored by institutions of national repute: KEM Hospital, LTMG Hospital, B. Y. L. Nair Charitable Hospital, and Dr. R. N. Cooper Municipal General Hospital. These hospitals not only provide advanced clinical services but also contribute substantially to medical education and research. Together with the network of 18 peripheral hospitals managed by the BMC, they form central referral points within the region's health system. On the primary and community front, UPHCs under the NUHM, alongside municipal health posts, dispensaries, and maternal and child health centres, form the backbone of first-contact care. MMUs extend this reach into marginalized and informal settlements. Community engagement is fostered through Mahila Arogya Samitis (MASs) and Rogi Kalyan Samitis (RKSs), which enhance responsiveness and local ownership in health governance.

6.2 Scheme-Linked Infrastructure

i. Under the MJPJAY**,** approximately 2,019 hospitals across Maharashtra (about 31% of total hospitals) are empaneled; of these, around 57 hospitals are located within Mumbai city.

ii. Efforts are underway to expand the MJPJAY network to 2,180 hospitals, with ambitions to reach 4,500 empaneled hospitals soon in Maharashtra.

These empanelled facilities form critical junctions between community-level care and tertiary institutions, enabling structured referrals and financial protection for patients.

Maharashtra boasts a large cadre of medical and nursing training institutions, forming a reliable pipeline of professionals. The current focus is on deploying these personnel equitably across the MMR region, emphasizing continuing medical education and offering incentives for suburban areas. Infrastructure modernization is also underway; many UPHCs are being upgraded with diagnostic facilities, pharmacies, and extended operational hours. Digital platforms like the e-Sushrut Hospital Information System**,** as well as integrations with CoWIN**,** the Reproductive and Child Health (RCH) and AB-PMJAY Portal, are enhancing data-driven coordination. Additionally, PPPs are strategically used to expand diagnostic, dialysis, and telemedicine services to underserved areas.

Table 5: Healthcare Infrastructure in the MMR Region

Level of Care	**Infrastructure Highlights**
Tertiary Care	Leading teaching and referral hospitals: KEM Hospital, LTMG (Sion) Hospital, B. Y. L. Nair Hospital.
Secondary & Primary Care	UPHCs, municipal health posts, dispensaries, maternal and child health centres, mobile units under NUHM/NHM.
Scheme Empaneled Facilities	2,019 hospitals empaneled under MJPJAY statewide (including 57 in Mumbai); combined MJPJAY/PMJAY includes 1,359 private and 672 government institutions.
Workforce & Digital Supports	Medical and nursing colleges; upgraded UPHCs; e-Sushrut, CoWIN, AB-PMJAY, RCH Portal; PPPs in diagnostics and telemedicine.

The national health schemes, such as the NHM, its urban counterpart NUHM, AB-PMJAY, and Maharashtra's MJPJAY, have expanded coverage, yet gaps remain in addressing emerging and chronic health burdens in the MMR region.

6.3 Non-Communicable Diseases (NCDs)

The growing burden of NCDs poses one of the most pressing health challenges in the MMR region. Conditions such as hypertension, diabetes, cardiovascular disease, and cancer have become widespread due to lifestyle changes, pollution, and limited preventive care[10]. These illnesses, once seen as concerns of the affluent, now disproportionately affect low-income populations in slums and peri-urban areas. The COVID-19 pandemic further highlighted this

[10] NCDs, such as diabetes, hypertension, and cardiovascular conditions, have increasingly replaced infectious diseases as the primary health burden in urban India.

vulnerability, as individuals with pre-existing NCDs faced higher risks of complications and mortality. The COVID-19 pandemic underscored both the resilience and fragility of the health system in the MMR region. It revealed the importance of disease surveillance, emergency preparedness, and cross-sector collaboration. At the same time, it exposed vulnerabilities in urban slums where overcrowding made containment nearly impossible. The key lesson is that public health cannot be separated from urban governance, housing, sanitation, waste management, and mobility, all of which directly shape health outcomes.

6.4 Mental Health: An Unseen Crisis

Mental health has emerged as a critical but often overlooked public health concern. The density of living conditions, economic stress, job insecurity, and the disruption caused by the pandemic have intensified anxiety, depression, and stress-related disorders across the MMR region[11]. Access to professional mental health services remains limited, with a shortage of trained psychiatrists and psychologists in public facilities. Although schemes under NHM emphasize community health, mental health integration at the primary level is still developing. Strengthening this area is vital for building a resilient health system in the MMR region.

6.5 Women's Health and Maternal Care

Women in the MMR region face persistent challenges in accessing comprehensive healthcare. While institutional deliveries have increased, maternal mortality and reproductive health gaps remain concerns, particularly among migrant and slum-dwelling populations. Nutritional deficiencies, anaemia, and limited access to quality antenatal care exacerbate risks. Programs like Janani Suraksha Yojana (JSY) and the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) strategy have improved outcomes, but disparities between urban slums and more affluent neighbourhoods highlight the continuing challenge of equity in service delivery. Public health in the MMR region is shaped by a complex mix of rising non-communicable diseases, persistent infectious threats, and overlooked issues such as mental health and hidden vulnerabilities. While these challenges are significant, government schemes like NHM, AB-PMJAY, and MJPJAY have created an important foundation to strengthen access and affordability of care[12]. The task ahead is to ensure that these initiatives are implemented with efficiency and inclusiveness, reaching the most marginalized groups in urban areas. By aligning resources, institutions, and communities, the MMR region has the potential to move closer toward equitable and resilient urban health systems.

[11] Mental health, though historically under-prioritized in public policy, gained visibility during and after the COVID-19 pandemic when urban populations faced heightened stress and anxiety.

[12] The significance of government health schemes in the MMR region lies not only in financial protection but also in their ability to integrate fragmented health services across municipal boundaries.

Table 6: Public Health Prospects in the MMR Region

City	Public Health Characteristics	Public Health Prospects
Mumbai	Mature healthcare ecosystem with a mix of primary, secondary, and tertiary facilities	Opportunities to further strengthen primary care, preventive services, and integrated urban health planning
Thane	Expanding municipal health services supported by growing urban infrastructure	Scope for enhancing community health initiatives, early screening programs, and health promotion activities
Kalyan-Dombivli	Developing urban health networks aligned with rapid population growth	Potential to reinforce primary healthcare delivery and scale community-based health outreach
Navi Mumbai	Planned urban health and environment with relatively organized service delivery	Prospects for digital health adoption, lifestyle-disease management, and improved health awareness systems
Panvel	Emerging urban node with increasing healthcare investments	Encouraging pathway for strengthening primary care capacity and strengthening health surveillance mechanisms
Mira-Bhayandar	Expanding urban health infrastructure with an increasing focus on essential services	Potential to expand early detection initiatives, public health education, and urban sanitation-linked health programs
Vasai-Virar	Fast-growing urban cluster with evolving civic health facilities	Opportunities to broaden preventive health measures, sanitation improvements, and integrated community health programs

Chapter - 7

Conclusion

The healthcare system in the MMR region has made remarkable strides, particularly through initiatives such as NUHM, AB-PMJAY and MJPJAY. The government's focus on strengthening primary healthcare infrastructure, establishing urban health posts, and extending insurance-based care has created a strong foundation to serve citizens, even amidst a rapidly growing urban population. The dedicated work of ASHA workers under the NHM stands out as an example of how community-level engagement can bring health services closer to people. Their contribution demonstrates the potential of grassroots participation in improving accessibility and awareness. Building on these achievements, there is scope for greater community facilitation to ensure inclusiveness. Just as ASHA workers bridge households and health systems, similar networks could be envisioned to support schemes like AB-PMJAY and MJPJAY at the community level, complementing the role of Arogya Mitras in hospitals. Regular health reviews through weekly or monthly visits, supported by community health volunteers, would further strengthen convergence between schemes and create confidence among citizens. Additionally, upgrading platforms such as the MJPJAY portal into comprehensive data dashboards could significantly enhance real-time monitoring, evaluation, and transparency. Integrating digital health tools, whether through strengthened portals, teleconsultations, or mobile applications, can create seamless care pathways and reduce pressure on tertiary hospitals by guiding citizens to appropriate services at the right time. Including mental health support within these initiatives, through counselling services and community-based programs, would also help nurture a more holistic approach to well-being.

Incorporating innovation-driven interventions such as electronic health records, AI-enabled triaging, GIS-based facility mapping, and digital grievance redress platforms have the potential to transform efficiency, reduce delays, and improve beneficiary experience. These innovations can positively influence access and utilization by shortening wait times, improving referral management, and ensuring that patients are guided to the nearest appropriate facility. When supported by community dissemination efforts, such as awareness camps, local facilitation centres, and multilingual digital content, beneficiaries gain a clearer understanding of their entitlements and available infrastructure. This strengthens not only service uptake but also satisfaction, as citizens feel more informed, supported, and confident navigating the health system.

For effective implementation across the MMR region, a structured model is necessary — one that integrates system-level coordination with community outreach. A three-tier model can be envisioned:

i. **Digital Backbone:** robust data dashboards, facility-mapping tools, telehealth linkages, and interoperable health records.

ii. **Community Interface:** trained community volunteers, Arogya Mitras, self-help groups, and municipal outreach teams acting as connectors between schemes and households.

iii. **Institutional Strengthening:** consistent upgrading of UPHCs, peripheral hospitals, diagnostics, and human resources to ensure that increased awareness translates into actual service availability.

Such a model will help overcome persistent constraints related to infrastructure gaps, limited awareness, administrative bottlenecks, and uneven utilization across socio-economic groups.

In summary, the healthcare system in the MMR region is steadily moving toward a model that blends accessibility, innovation, and inclusivity. With emphasis on integration, citizen engagement, digital transformation, and compassionate care, the region is poised to evolve into a health system that not only addresses immediate needs but also fosters long-term resilience. Strengthening implementation models, improving the dissemination of information, and enhancing the overall experience and satisfaction of beneficiaries will be central to sustaining this momentum and ensuring that every individual in the MMR region can access timely, quality, and equitable healthcare.

Chapter - 8

Way Forward

8.1 Convergence and Institutional Integration

One of the most urgent steps forward is the convergence of flagship schemes such as NUHM, AB-PMJAY and MJPJAY, which currently operate in isolation despite targeting overlapping populations. Institutional and technological integration is required at multiple levels — starting with the unification of beneficiary databases to eliminate duplication and ensure portability of entitlements across schemes. Empanelment processes for health facilities should be harmonized, with a single-window system for claims and reimbursements that reduces delays and confusion. A unified monitoring and evaluation framework, complemented by shared performance indicators, will help avoid fragmented oversight and allow policymakers to track outcomes more effectively. The integration of digital platforms across these missions will also enable smoother coordination, reduce administrative costs, and strengthen accountability across stakeholders.

8.2 Strengthening Urban Primary Care Infrastructure

Urban primary care in the MMR region must be repositioned as the first point of contact for citizens, particularly for low-income groups who currently bypass local health posts and flock to tertiary hospitals. Expanding health posts into full-fledged UPHCs, supported by sufficient staff and essential diagnostics, is a critical reform. These facilities should deliver an integrated package of services covering maternal and child health, immunization, screening for non-communicable diseases, and basic mental health interventions. MMUs can serve as flexible outreach tools for migrant workers and residents of peri-urban and informal settlements. Teleconsultation platforms, coupled with AYUSH services, can further diversify care options and reduce pressure on secondary hospitals. To ensure accountability, every facility should be evaluated against Indian Public Health Standards (IPHS), with third-party audits feeding into a publicly accessible star-rating system. Strengthening this infrastructure must go hand in hand with deploying adequate human resources, including mid-level providers and paramedics, so that service delivery is not constrained by workforce shortages. Given that municipal corporations in the MMR region are among the strongest local bodies in India, both financially and institutionally, leveraging their existing health infrastructure offers a unique opportunity to scale these reforms rapidly. Strengthened municipal investment, combined with state support for capital upgrades, can transform local health facilities into robust, citizen-centered primary care hubs.

8.3 Scheme Implementation: Awareness, Inclusion, and Operational Efficiency

While AB-PMJAY and MJPJAY together promise significant financial protection, their success is limited by low public awareness and administrative hurdles. A stronger implementation strategy must focus on community-based facilitators or "health navigators" who can support citizens with enrollment, documentation, and hospital admissions. Streamlining claim processes with automated, real-time approvals for pre-authorization will reduce delays and enhance patient confidence in the system. Special outreach programs must target informal settlements, where many residents are unaware of their entitlements or lack valid identification. Inclusion mechanisms such as community-based ID cards or municipal registries could help bridge this gap. At the same time, strengthening scheme delivery requires filling key specialist posts in empaneled hospitals and offering incentives to ensure adequate staff in urban poor clusters, so that financial protection translates into real access to care. Considering the financial ceiling of Rs. 5 lakhs under AB-PMJAY may need flexible enhancements in high-cost urban areas like Mumbai, where catastrophic illnesses often exceed the annual limit. Local health protection pools or top-up packages could be introduced to safeguard families against medical impoverishment.

8.4 Integrating Mental Health into the Health Insurance Ecosystem

Mental health remains one of the most under-addressed dimensions of urban healthcare, despite growing evidence of its co-morbidity with chronic illnesses such as diabetes, hypertension, and cardiovascular disease. Both AB-PMJAY and MJPJAY must expand their coverage to include psychiatric consultations, counselling sessions, and basic psychotropic medication. Hospitals empanelled under these schemes should be encouraged, or even mandated, to integrate mental health services either through in-house units or partnerships with the District Mental Health Program (DMHP). Urban HWCs, when equipped with tele-counselling facilities and trained counsellors, can offer preventive and promotive mental health services at the community level. Normalizing mental health care within insurance schemes would not only reduce stigma but also strengthen holistic treatment pathways for vulnerable populations in the MMR region.

8.5 Digital Transformation and Data-Driven Governance

For the MMR region, to achieve responsive and accountable healthcare, digital systems must serve as its core governance framework. Scaling the e-Sushrut platform across all public hospitals and integrating it with NHM's Health Management Information System (HMIS) would enable seamless, facility-wide access to patient records. A real-time, geo-tagged health dashboard, mapping public and private facilities, empaneled hospitals, bed availability, and service utilization should become a standard tool for decision-making. Telemedicine must be embedded within this

system to link UPHCs and peripheral hospitals with specialists in tertiary centres, ensuring timely consultations and reducing unnecessary referrals. Artificial Intelligence (AI) can further strengthen the system by predicting outbreaks, identifying service gaps, and flagging fraudulent insurance claims. A multilingual chatbot platform can support citizens by providing scheme information, facility locations, and grievance redressal. To ensure coordination across districts, a 'Unified MMR Health Authority' should be established to align policy, funding, and service delivery across ULBs such as Mumbai, Thane, and Navi Mumbai.

By focusing on convergence, strengthening primary care, human resource reforms, inclusive insurance mechanisms, mental health integration, and digital governance, the MMR region can pioneer a replicable model for other Indian megacities. Such a model would reflect the true essence of citizen-responsive healthcare where efficiency meets compassion, and every individual, regardless of socio-economic status, has access to timely and quality care.

References

1. Asian Development Bank. (2023). *An assessment of the Maharashtra state health system.* Asian Development Bank. https://www.adb.org/publications/assessment-maharashtra-state-health-system

2. Government of India, Ministry of Health and Family Welfare. (2014). *Executive summary: Reaching health care to the unreached – Making the Urban Health Mission work for the urban poor (Report of the Technical Resource Group on NUHM).*

   https://www.nhsrcindia.org/sites/default/files/2021-03/Executive%20Summary%20-%20Report%20of%20TRG%20for%20NUHM.pdf

3. Government of India, Ministry of Health and Family Welfare. (2013). *NUHM: Framework for implementation.* https://www.nhm.gov.in/images/pdf/NUHM/Implementation_Framework_NUHM.pdf

4. Government of India, Ministry of Health and Family Welfare. (2018). *Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana: Guidelines.* Ministry of Health and Family Welfare.

5. Government of India, Ministry of Health and Family Welfare. (2024). *Initiatives & achievements 2024.*

   https://static.pib.gov.in/WriteReadData/specificdocs/documents/2024/dec/doc20241228477601.pdf

6. Government of Maharashtra. (2016). *Mahatma Jyotirao Phule Jan Arogya Yojana: Scheme guidelines.* https://www.jeevandayee.gov.in

7. Government of Maharashtra. (2023). *Empaneled hospitals under MJPJAY (Official list).* https://www.jeevandayee.gov.in/RGJAYDocuments/Empanelled_Hospitals_Under_MJPJAY.pdf

8. Reshmi, B., Unnikrishnan, B., Rajwar, E., et al. (2021). *Impact of public-funded health insurances in India on health care utilisation and financial risk protection: A systematic review. BMJ Open, 11*(12), e050077. https://pmc.ncbi.nlm.nih.gov/articles/PMC8704974/

9. National Health Systems Resource Centre. (2023). *NUHM Framework 2023.*

   https://nhsrcindia.org/sites/default/files/2023-09/NUHM%20Framework%202023.pdf

10. NITI Aayog. (2021). *Health system strengthening: Key initiatives and progress.* Government of India.

https://dmeo.gov.in/sites/default/files/202107/7_Sector_Report_Health.pdf?utm_source

11. Patil, R. R. (2020). *Impact of nonpharmacological interventions on COVID-19 transmission dynamics in India. Indian Journal of Public Health, 64*(Suppl), S142–S146. https://pubmed.ncbi.nlm.nih.gov/32496246/

12. Prinja, S., Chauhan, A. S., Karan, A., Kaur, G., & Kumar, R. (2017). *Impact of publicly financed health insurance schemes on healthcare utilisation and financial risk protection in India: A systematic review. PLoS ONE, 12*(2), e0170996.

https://doi.org/10.1371/journal.pone.0170996

13. Selvaraj, S., & Karan, A. (2012). Why publicly financed health insurance schemes are ineffective in providing financial risk protection. *Economic and Political Weekly, 47*(11), 60–68. https://www.epw.in/journal/2012/11/special-articles/why-publicly-financed-health-insurance-schemes-are-ineffective

14. Sharma, R., & Sahoo, S. (2016). Health insurance schemes in India: An overview. *Indian Journal of Public Health Research & Development.*

file:///C:/Users/approva/Downloads/288892_84925132.pdf

15. Venkatesh, U., Garg, S., Gnanasekaran, S., & Pal, G. K. Pal. (2024). The National Urban Health Mission (NUHM): Impact, challenges, and future directions for urban health care in India. *Journal of the Epidemiology Foundation of India, 2*(4), 152–162.

https://efi.org.in/journal/index.php/JEFI/article/view/46

16. World Health Organization. (2019). *India health system review (Health Systems in Transition, 11(1)).* https://iris.who.int/bitstream/handle/10665/352685/9789290229049-eng.pdf

17. World Health Organization. (2022). *India health system review.* WHO Regional Office for South-East Asia.

18. World Health Organization. (2025). *Mental health: Strengthening our response* [Fact sheet]. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

19. World Health Organization. (n.d.). *National Urban Health Mission.*

https://www.nhm.gov.in/index1.php?lang=1&level=1&lid=137

Regional Centre for Urban & Environmental Studies (RCUES)
All India Institute of Local Self-Government (AIILSG), Mumbai
M. N. Roy Human Development Campus, Plot No.6, F' Block, Opp. Bandra Colony Metro Station (Aqua Line 3, Gate No. A2), Near Uttar Bhartiya Sangh College, Bandra (E), Mumbai-400051.
Tel. No. : 8657622550/51/52/54, Email.: dir.rcues@aiilsg.org ; rcuestraining@aiilsg.org
Website: www.aiilsg.org/rcues