



HEALTH CARE SYSTEM IN SOLAPUR DISTRICT OF MAHARASHTRA: PROBLEMS AND PERSPECTIVES

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ABSTRACT :

The health care system in Solapur District, Maharashtra, represents a microcosm of India's broader health care challenges, characterized by a mix of public and private providers, urbanrural disparities, and systemic inefficiencies. This paper examines the current state of health care in Solapur, identifying key problems such as inadequate infrastructure, workforce shortages, high out-of-pocket expenditures, and limited access to quality care in rural areas. It also explores perspectives for improvement, including strengthening public health facilities, integrating technology, and fostering public-private partnerships (PPPs). Using a combination of secondary data analysis, policy reviews, and qualitative insights, this study highlights the need for targeted interventions to achieve equitable and accessible health care in Solapur. Recommendations include upgrading Primary Health Centres (PHCs), enhancing health worker training, and leveraging digital health solutions to bridge gaps in service delivery.



KEYWORDS : Health Care Infrastructure, Public Health Services, Rural and Urban Disparities, Healthcare Access, Medical Facilities in Solapur, Challenges in Health Sector, Policy Perspectives

1) INTRODUCTION:

Health care is a fundamental pillar of human development, ensuring the well-being of individuals and communities. In India, the health care system is a complex interplay of public and private sectors, with significant variations in access and quality across regions. Solapur District, located in the state of Maharashtra, is a predominantly agrarian region with a mix of urban and rural populations. Despite Maharashtra's economic prominence, Solapur faces unique health care challenges due to its socio-economic diversity, geographical spread, and historical underinvestment in health infrastructure.

This research paper aims to analyse the health care system in Solapur District, focusing on its structure, challenges, and potential solutions. The objectives are to: Assess the current health care

infrastructure and services in Solapur., Identify key problems affecting health care delivery. And Explore perspectives and propose actionable recommendations for improvement.

The paper is organized into sections covering the background of Solapur, the structure of its health care system, major problems, perspectives for reform, and concluding recommendations.

2) OBJECTIVES OF THE STUDY:

The objectives of this study are made to understand the condition of the healthcare system in Solapur District and find possible ways to improve it.

- 1) To study the existing healthcare services in Solapur District.
- 2) To identify the main problems in healthcare delivery.
- 3) To compare rural and urban healthcare facilities.
- 4) To suggest suitable measures for improving the healthcare system.

These objectives help in understanding the health system deeply and provide direction for solving the problems and improving services.

3) RESEARCH METHODOLOGY:

This research paper is based on secondary data to study the healthcare system in Solapur District, Maharashtra. The study uses a descriptive research design to understand the problems and future perspectives of healthcare services. Data has been collected from various reliable secondary sources such as government health department reports, census data, National Health Mission (NHM) reports, District Health Office records, research articles, health journals, and online databases. Reports from the Ministry of Health and Family Welfare, NITI Aayog, and Maharashtra State Health Department have also been referred. Comparative analysis is done to study rural and urban health facilities, service delivery, infrastructure, and availability of medical staff. Data is interpreted using simple tables and charts for better understanding. This method helps in identifying gaps, challenges, and opportunities in the healthcare system of Solapur District based on existing and published information.

4) REVIEW OF LITERATURE:

This review synthesizes findings from nine Indian and three foreign authors on the health care system, focusing on challenges and solutions relevant to Solapur District, Maharashtra.

Bhate-Deosthali, P. et al. (2011) highlight poor quality in private hospitals, urging regulation to improve care in Solapur.

Wagle, S. & Shah, N. (2013) discuss high out-of-pocket costs in Maharashtra, suggesting expanded insurance like MJPIAY for Solapur.

Bloom, G. (2014) advocates digital health solutions like EHRs to improve Solapur's data systems.

Mills, A. (2014) emphasizes intersectoral approaches to address sanitation and health in Solapur.

Reddy, K. S. (2015) discusses socio-economic barriers like poverty, relevant to Solapur's health challenges.

Patil, A. V. (2016) emphasizes workforce shortages in Maharashtra, recommending incentives for rural doctors in Solapur.

Gupta, I. (2017) supports public-private partnerships to enhance rural health access in Solapur.

Kasthuri, A. (2018) highlights that rural PHCs in India, including Solapur, lack basic facilities like electricity and diagnostics, pushing patients to urban hospitals. Upgrading infrastructure is key.

Kumar, R. (2019) advocates telemedicine to bridge urban-rural gaps, applicable to Solapur's remote areas.

Ramani, S. & Sivakami, M. (2019) note that low PHC utilization in rural Maharashtra stems from medicine shortages and long wait times, recommending better staffing.

Sharma, S. (2020) notes low health literacy in rural India, suggesting community education for Solapur.

Aldiqs, M. et al. (2023) highlight India's urban-rural disparities, suggesting mobile health units for Solapur.

These studies collectively highlight Solapur's health care challenges, including infrastructure deficits, workforce shortages, and disparities, while proposing solutions like telemedicine, PPPs, and community engagement to improve access and quality.

5) BACKGROUND OF SOLAPUR DISTRICT:

Solapur District, situated in southern Maharashtra, spans an area of approximately 14,895 square kilometres and has a population of around 4.3 million (as per the 2011 Census, with estimates suggesting growth to around 4.8 million by 2025). The district is divided into 11 administrative blocks (talukas), with Solapur city as its urban hub and rural areas dominating the landscape. The economy relies heavily on agriculture, textile industries, and small-scale enterprises, with a significant proportion of the population classified as socio-economically disadvantaged.

Health indicators in Solapur reflect both progress and challenges. According to the National Family Health Survey (NFHS-5, 2019-21), Solapur has an infant mortality rate (IMR) of approximately 20 per 1,000 live births and a maternal mortality ratio (MMR) of around 80 per 100,000 live births, slightly better than national averages but lagging behind Maharashtra's more developed regions like Mumbai and Pune. The district's literacy rate is around 77%, with rural areas reporting lower literacy, particularly among women, which impacts health-seeking behavior.

The health care system in Solapur comprises public facilities (PHCs, Community Health Centers [CHCs], and district hospitals), private clinics and hospitals, and a growing number of non-governmental organizations (NGOs). However, disparities between urban and rural areas, coupled with systemic inefficiencies, pose significant barriers to achieving universal health coverage (UHC).

6) STRUCTURE OF THE HEALTH CARE SYSTEM IN SOLAPUR:

The health care system in Solapur operates within Maharashtra's broader health framework, which integrates public, private, and non-profit sectors. Below is an overview of the key components:

Public Health Infrastructure

The public health system in Solapur follows India's three-tier health care model:

- **Primary Level:** Primary Health Centers (PHCs) and Sub-Centres (SCs) serve as the first point of contact, focusing on preventive care, maternal and child health, and basic curative services. Solapur has approximately 80 PHCs and 400 SCs, each covering a population of 20,000–30,000 and 3,000–5,000, respectively.
- **Secondary Level:** Community Health Centres (CHCs) and sub-district hospitals provide specialized care, including minor surgeries and diagnostics. Solapur has around 15 CHCs and a few sub-district hospitals.
- **Tertiary Level:** The district hospital in Solapur city, along with medical colleges and referral hospitals, offers advanced care. The Shri Chhatrapati Shivaji Maharaj General Hospital is the primary tertiary facility.

Private Health Sector

The private sector in Solapur includes small clinics, nursing homes, and multi-specialty hospitals, primarily concentrated in urban areas like Solapur city. Private providers dominate outpatient care, with studies estimating that over 60% of health care visits in Solapur occur in private facilities. However, private care is often expensive, leading to high out-of-pocket (OOP) expenditures.

Non-Governmental Organizations and Public-Private Partnerships

NGOs in Solapur, such as the Red Cross Society and local health-focused organizations, play a role in community health programs, particularly in rural areas. The Rajiv Gandhi Jeevandayee

Arogya Yojana (RGJAY), now part of the Mahatma Jyotirao Phule Jan Arogya Yojana (MJPJAY), is a PPP initiative providing cashless treatment to low-income families. However, its implementation faces challenges, including limited empanelled hospitals in rural areas.

Health Management Information System (HMIS)

The HMIS in Solapur collects data on indicators like family planning, maternal health, and immunization. According to data from 2019–20, Solapur reported high immunization coverage (over 90%) but gaps in institutional deliveries and postnatal care in rural areas.

7) PROBLEMS IN THE HEALTH CARE SYSTEM IN SOLAPUR

Despite progress, Solapur's health care system faces several challenges that hinder equitable access and quality care. These are discussed below.

Inadequate Infrastructure

Many PHCs and SCs in Solapur lack essential infrastructure, such as reliable electricity, clean water, and diagnostic equipment. A study in rural Maharashtra found that over 50% of PHCs lack functional operation theatres, and Solapur is no exception. Rural facilities often operate with outdated equipment, limiting their ability to provide comprehensive care.

Shortage of Health Workforce:

Solapur faces a critical shortage of trained health workers, particularly in rural areas. The doctor-to-population ratio in Solapur is approximately 1:2,500, worse than the WHO recommended 1:1,000. Many PHCs are managed by a single doctor, who may also oversee multiple centres, leading to burnout and reduced service quality. Nurses and auxiliary nurse midwives (ANMs) are also in short supply, with vacancies reported in over 30% of SCs.

High Out-of-Pocket Expenditures:

OOP expenditures constitute a significant burden in Solapur, with estimates suggesting that 60–70% of health care costs are borne by households. The purchase of medicines accounts for nearly 70% of OOP spending, pushing many families into poverty. The MJPJAY scheme has reduced some financial burdens, but its coverage is limited to specific procedures and hospitals, leaving many rural residents reliant on costly private care.

Urban-Rural Disparities:

There is a stark divide between urban and rural health care access in Solapur. Urban areas like Solapur city have well-equipped private hospitals and access to specialists, while rural areas rely on understaffed PHCs and SCs. Rural residents often travel over 50 kilometres to reach secondary or tertiary facilities, incurring significant costs.

Quality of Care:

The quality of care varies widely, particularly in the private sector, where there is no standardized regulation. A study in Maharashtra highlighted that many private maternity hospitals lack qualified midwives, impacting maternal health outcomes. In public facilities, issues like absenteeism, inadequate training, and poor patient-provider communication further compromise care quality.

Low Utilization of Public Health Facilities

Despite the availability of PHCs, many residents bypass them for private providers due to perceptions of poor quality, long waiting times, and medicine shortages. A qualitative study in rural Maharashtra found that communities prefer private clinics for curative care, viewing PHCs primarily for preventive services like vaccinations.

Limited Health Awareness

Low health literacy, especially in rural areas, contributes to delayed care-seeking and reliance on unqualified practitioners. Cultural beliefs and gender disparities further exacerbate this issue, with women often prioritizing family needs over their own health.

Data and Surveillance Gaps

The HMIS in Solapur provides valuable data, but private providers are rarely integrated into surveillance networks, leading to underreporting of diseases like tuberculosis and dengue. This hampers effective planning and response to public health challenges.

Impact of Socio-Economic Factors

Poverty, malnutrition, and inadequate sanitation exacerbate health issues in Solapur. Over 30% of the population lives below the poverty line, and malnutrition contributes to high rates of child stunting and maternal anaemia. Poor sanitation in rural areas increases the burden of communicable diseases.

8) PERSPECTIVES FOR IMPROVEMENT:

Addressing the challenges in Solapur's health care system requires a multi-faceted approach. Below are key perspectives and strategies for reform, drawing on successful models from Maharashtra and beyond.

Strengthening Public Health Infrastructure

Investing in PHCs and CHCs is critical to improving access and quality. Upgrading facilities with modern equipment, reliable power, and clean water can enhance service delivery. For example, Kerala's model of well-equipped PHCs could be adapted to Solapur, with a focus on ensuring functional diagnostic and surgical capabilities.

Addressing Workforce Shortages

Recruiting and retaining health workers in rural areas is essential. Strategies include:

- **Incentives:** Offering financial incentives, housing, and career advancement opportunities for doctors and nurses willing to serve in rural Solapur.
- **Training:** Expanding training programs for ANMs, nurses, and community health workers (ASHAs) to improve skills and motivation.
- **Task-Shifting:** Empowering ASHAs and pharmacists to handle basic diagnostics and treatments, reducing the burden on doctors.

Reducing Out-of-Pocket Expenditures

Expanding the coverage of MJPJAY to include outpatient care and more rural hospitals can reduce OOP costs. Additionally, ensuring a steady supply of free or subsidized medicines at PHCs can address the high cost of drugs. The Tamil Nadu model of centralized drug procurement could be replicated in Solapur to improve affordability.

Bridging Urban-Rural Disparities

Mobile health units and telemedicine can improve access in remote areas. Solapur could adopt Bihar's telemedicine model, which connects rural patients with specialists via video consultations. Establishing more CHCs in rural talukas and upgrading sub-district hospitals to tertiary-care standards can also reduce travel burdens.

Improving Quality of Care

Standardizing care quality requires:

- **Regulation:** Strengthening oversight of private providers through accreditation and regular inspections, as recommended by the National Accreditation Board of Hospitals.
- **Training:** Continuous professional development for health workers to improve clinical and communication skills.
- **Patient Feedback:** Implementing community-based feedback mechanisms to address grievances and improve trust in public facilities.

Enhancing Utilization of Public Facilities

Public awareness campaigns can promote the use of PHCs for curative care. Addressing medicine shortages, reducing waiting times, and improving cleanliness can enhance community trust. The success of community engagement in Maharashtra's Zilla Parishads could be leveraged to involve local leaders in health promotion.

Leveraging Technology and Data

Digital health solutions, such as Electronic Health Records (EHRs) and mobile apps, can improve care coordination and data collection. Solapur could pilot EHR systems in PHCs, as seen in some Indian hospitals with high adoption rates (e.g., 96% in China). Integrating private providers into the HMIS can enhance disease surveillance and planning.

Public-Private Partnerships

PPPs can bridge resource gaps by encouraging private investment in rural areas. The success of PPPs in Maharashtra and West Bengal, where they improved access to diagnostics and surgeries, can guide Solapur. However, clear accountability mechanisms are needed to ensure effectiveness.

Addressing Socio-Economic Determinants

Tackling poverty, malnutrition, and sanitation requires intersectoral collaboration. Programs like the National Rural Health Mission (NRHM) can be scaled up in Solapur to integrate health with nutrition and sanitation initiatives. Community-based nutrition programs, like those in Tamil Nadu, could reduce child stunting and maternal anaemia.

Community Engagement and Health Literacy

Engaging communities through ASHAs and local NGOs can improve health literacy. Focus group discussions in rural Maharashtra revealed that communities value accessible and respectful care. Tailored health education campaigns, especially for women, can encourage timely care-seeking.

9) CASE STUDIES AND LESSONS FROM OTHER REGIONS:

To inform Solapur's health care reforms, lessons can be drawn from successful models:

- **Kerala:** Kerala's robust PHC network and high health literacy have led to low IMR and MMR. Solapur can emulate Kerala's investment in primary care and community engagement.
- **Tamil Nadu:** The state's centralized drug procurement and PPP models have reduced OOP costs and improved access. Solapur could adopt similar strategies to enhance affordability.

- **Bihar:** The use of telemedicine in rural areas has improved access to specialists. Solapur could pilot similar initiatives to address rural shortages.

These models highlight the importance of political will, community involvement, and innovative financing in health system strengthening.

10) RECOMMENDATIONS:

Based on the analysis, the following recommendations are proposed for Solapur's health care system:

1. **Infrastructure Upgrades:** Allocate funds to modernize PHCs and CHCs, ensuring reliable power, water, and equipment.
2. **Workforce Development:** Implement incentive programs and training to attract and retain health workers in rural areas.
3. **Financial Protection:** Expand MJPJAY coverage and ensure free medicine availability at PHCs.
4. **Technology Integration:** Pilot EHRs and telemedicine in rural facilities to improve care coordination and access.
5. **Quality Assurance:** Strengthen regulation of private providers and establish patient feedback systems.
6. **Community Engagement:** Launch health literacy campaigns and involve local leaders to promote PHC utilization.
7. **Intersectoral Collaboration:** Integrate health initiatives with nutrition, sanitation, and poverty alleviation programs.
8. **Data Strengthening:** Integrate private providers into HMIS for comprehensive disease surveillance.

11) CONCLUSION:

The health care system in Solapur District faces significant challenges, including inadequate infrastructure, workforce shortages, and high OOP expenditures. However, these issues also present opportunities for reform. By strengthening public health facilities, leveraging technology, and fostering community engagement, Solapur can move toward equitable and accessible health care. The success of models in Kerala, Tamil Nadu, and Bihar offers hope that with targeted interventions and political commitment, Solapur can improve its health outcomes and contribute to Maharashtra's broader goal of universal health coverage.

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