



A Study on Sustainable Development Goals in Healthcare in India

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Abstract: This study examines India's strategic roadmap, systemic achievements, and structural challenges in realizing United Nations Sustainable Development Goal 3 (SDG 3: Good Health and Well-being) by 2030. Operating the world's largest public health portfolio, India employs a dual approach combining robust financial risk protection through the Ayushman Bharat (AB-PMJAY) scheme with comprehensive primary care digitization via the Ayushman Bharat Digital Mission (ABDM). Utilizing secondary data from the NITI Aayog SDG India Index and national family health surveys, this paper evaluates regional performance disparities across major states. The analysis reveals substantial progress in maternal and under-five mortality reductions, accelerated by structural frameworks like the U-WIN immunization platform. However, systemic bottlenecks persist, driven by high out-of-pocket expenditure averaging nearly double the sustainable target benchmark alongside acute rural-urban diagnostic imbalances and a rising non-communicable disease burden. The study concludes that achieving universal health coverage requires bridging state-level infrastructure gaps, stabilizing administrative leadership tenures, and expanding public healthcare spending. Ultimately, India's digitized, equity-driven model provides a scalable template for developing nations striving toward sustainable healthcare infrastructure under stringent fiscal constraints.

Keywords: Sustainable Development Goals (SDGs), Indian healthcare system, Public health policy, Universal Health Coverage (UHC), Healthcare accessibility, Sustainable development

1. Introduction: The Sustainable Development Goals (SDGs), adopted by all United Nations Member States in 2015, serve as a universal blueprint to achieve peace, prosperity, and environmental sustainability by 2030. Central to this transformative agenda is SDG 3, which aims to “Ensure healthy lives and promote well-being for all at all ages.” Health is uniquely positioned within this framework; it acts as both a prerequisite for and a key outcome of sustainable development. In a rapidly developing nation like India, achieving the health-related SDGs presents a monumental task, given the country's vast demographic diversity, socio-economic disparities, and unique epidemiological challenges.

India's healthcare landscape is characterized by a stark dualism. On one hand, the country boasts world-class medical tourism hubs, a booming pharmaceutical sector, and pioneering digital health frameworks like “the Ayushman Bharat Digital Mission (ABDM)”. On the other hand, a significant portion of the population particularly in rural and marginalized communities faces barriers to basic healthcare.

The Indian government has launched ambitious initiatives to bridge these gaps and align with SDG targets, most notably the “Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY)”, which represents the world's largest government-

funded health assurance scheme. This initiative, alongside the expansion of “Health and Wellness Centres (HWCs)”, forms the bedrock of India's strategy to achieve “Universal Health Coverage (UHC)” a core pillar of SDG 3.

The country continues to grapple with a high burden of non-communicable diseases (NCDs) alongside persistent infectious diseases. Furthermore, challenges such as low public health expenditure (historically hovering below 2.5% of GDP), a severe shortage and unequal distribution of the healthcare workforce, and high out-of-pocket expenditure (OOPE) frequently push vulnerable families into poverty. These systemic vulnerabilities highlight the urgent need for a critical, empirical evaluation of how effectively health policies translate into sustainable outcomes on the ground.

2. Review of Literature:

The academic and policy discourse surrounding Sustainable Development Goal 3 (SDG 3) in India centers on balancing ambitious public health reforms with deeply entrenched socioeconomic and regional disparities. Evaluating India's progress toward achieving Universal Health Coverage (UHC) requires a thematic consolidation of peer-reviewed literature published between the milestone years of 2015 and 2024. This review synthesizes existing research across four dimensions: maternal and child health outcomes,

the double epidemiological burden, financial vulnerabilities, and the introduction of digitized health safety nets.

Trajectories in Maternal and Child Health Metrics (SDG 3.1 & 3.2), a major focal point of health literature since the adoption of the SDGs in 2015 is India's aggressive strategy to reduce preventable mortality. Analyses utilizing National Family Health Survey (NFHS-4 and NFHS-5) data reveal strong downward trajectories in the Maternal Mortality Ratio (MMR) and the Under-Five Mortality Rate (U5MR). Scholars attribute these positive trends to targeted structural interventions like institutional birth incentives and digitized vaccine monitoring. However, empirical evaluations stress that despite macro-level improvements, sharp regional variations exist. Empowered Action Group (EAG) states continuously lag behind the high-performing southern states, suggesting that baseline geographical disparities dictate the pace of progress.

The Dynamic Burden of Disease and Infrastructure Inequities (SDG 3.3 & 3.4), the literature frequently addresses India's complex “double burden of disease”. The health infrastructure is simultaneously stretched by legacy infectious epidemics such as the targeted national mission to eliminate Tuberculosis—and an accelerating wave of non-communicable lifestyle conditions (NCDs) including diabetes and

cardiovascular health crises. Researchers highlight that structural inputs, such as primary health infrastructure upgrades, face distinct resource constraints. Severe human resource deficits, particularly rural specialist shortages in Community Health Centres (CHCs), critically limit the uniform delivery of preventive and curative care across districts.

Out-of-Pocket Expenditure and Financial Vulnerability (SDG 3.8), A central metric of UHC achievement is the mitigation of health-induced financial shock. National Health Accounts data indicates that while Out-of-Pocket Expenditure (OOPE) as a share of Total Health Expenditure dropped significantly from its 2014 baselines, it experienced unexpected post-pandemic spikes, accounting for roughly 43.4% of total expenditures. Health economics literature maintains that OOPE remains a leading driver of secondary household debt and transient poverty in rural populations, far exceeding the globally recognized sustainable safety threshold of 7.83%.

Systemic Protection and Digital Safety Nets (AB-PMJAY & ABDM), to mitigate financial catastrophe, recent literature extensively evaluates the multi-tier Ayushman Bharat initiative. Studies assessing the primary flagship health insurance mechanism (AB-PMJAY) demonstrate that while the scheme provides critical cash-free tertiary blankets for the bottom 40% of the population, its localized impact is heavily dependent on public-

private hospital networks and the prevention of private provider overcharging. Concurrently, policy reviews examining the Ayushman Bharat Digital Mission (ABDM) highlight the rapid scaling of digitized registries (ABHA IDs). Despite massive administrative registration milestones, researchers point out that low digital literacy, localized connectivity barriers, and a lack of private hospital compliance present persistent bottlenecks in realizing a truly synchronized national digital health framework.

3. Purpose of the Study:

This study evaluates the current trajectory of Sustainable Development Goals within the Indian healthcare sector. It systematically examines the implementation efficiency of key government health schemes, assesses the narrowing gap between rural and urban health delivery, and identifies the structural barriers slowing progress. By analyzing national health metrics and institutional frameworks, this research aims to provide actionable, evidence-based recommendations for policymakers, public health professionals, and stakeholders to accelerate India's journey toward its 2030 health mandates.

Sustainable Development Goal 3 (SDGs 3):

India is strongly committed to achieving the United Nations' Sustainable Development Goal 3 (SDG 3: Good Health and Well-being) and the broader target of Universal Health Coverage (UHC). To fulfill these global commitments, the

Government of India has mapped and implemented a comprehensive array of healthcare schemes. These initiatives are structurally grouped below by their specific SDG targets:

4. Universal Health Coverage & Infrastructure (SDG Target 3.8):

4.1 Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY): The world's largest health assurance scheme, providing ₹5 lakh per family per year for secondary and tertiary care to over 50 crore vulnerable citizens. In 2024, it expanded via Ayushman Vay Vandana to cover all senior citizens aged 70 and above regardless of income.

4.2 Ayushman Arogya Mandirs (AAM): Over 1.86 lakh upgraded primary health facilities across India providing comprehensive primary healthcare, diagnostics, and free essential medicines closer to communities.

4.3 Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP): A network of 18,000+ Jan Aushadhi Kendras that drastically cut out-of-pocket medical expenses by selling high-quality generic medicines at 50% to 90% lower costs.

4.4 PM-Ayushman Bharat Health Infrastructure Mission (PM-ABHIM): A massive scheme focusing on building pandemic resilience, establishing critical care hospital blocks, and upgrading diagnostic labs across all districts.

4.5 Ayushman Bharat Digital Mission (ABDM):

Connects the entire medical ecosystem digitally using ABHA health IDs, securing seamless, consent-based sharing of digital health records.

4.6 eSanjeevani: A highly scalable national telemedicine portal that has provided over 47 crore free online doctor consultations, bridging the rural-urban specialist gap.

5. Maternal and Child Health (SDG Targets 3.1 & 3.2):

5.1 Janani Suraksha Yojana (JSY) & Janani Shishu Suraksha Karyakram (JSSK): Entitles all pregnant women to completely free deliveries (including C-sections) in public health institutions, alongside cash incentives to encourage institutional births.

5.2 Pradhan Mantri Matru Vandana Yojana (PMMVY): A direct benefit transfer (DBT) scheme providing cash incentives to pregnant and lactating mothers to compensate for wage loss and ensure adequate nutrition.

5.3 LaQshya Initiative: Focuses on improving the quality of care in labour rooms and maternity operation theatres to reduce intrapartum maternal and newborn mortality.

5.4 Mission Indradhanush & U-WIN Portal: A massive immunization drive targeting

unvaccinated or partially vaccinated children and pregnant women. The digital U-WIN portal electronically tracks vaccination registration and distribution nationwide.

5.5 Rashtriya Bal Swasthya Karyakram (RBSK):

Early screening program for children from birth to 18 years to detect the “4 Ds”: Defects at birth, Deficiencies, Diseases, and Development delays.

6. Communicable Diseases & Elimination Drives (SDG Target 3.3):**6.1 Pradhan Mantri TB Mukht Bharat Abhiyaan:**

A targeted mission to eliminate Tuberculosis (TB). It includes the Ni-kshay Mitra initiative, allowing citizens and corporations to adopt TB patients and sponsor their nutritional and medical needs.

6.2 National Sickle Cell Anemia Elimination

Mission: Launched with the target to eliminate sickle cell disease by 2047, screening crores of citizens in highly affected tribal areas.

6.3 National Vector Borne Disease Control Programme (NVBDCP):

Central umbrella programme for the prevention and control of vector-borne diseases like Malaria, Dengue, Chikungunya, and Kala-azar.

6. Nutrition and Cross-Cutting Health Goals (SDG 2 - Zero Hunger):

POSHAN Abhiyaan (National Nutrition Mission): Multi-ministerial convergence mission aimed at reducing stunting, under-nutrition, and anemia

among young children, adolescent girls, and women.

PM Poshan Shakti Nirman (formerly Mid-Day Meal Scheme): Provides hot cooked nutritious meals to school-aged children to improve nutritional standing and health profiles.

7. The SDG India Index (specifically Goal 3: Good Health and Well-being) and the State Health Index:

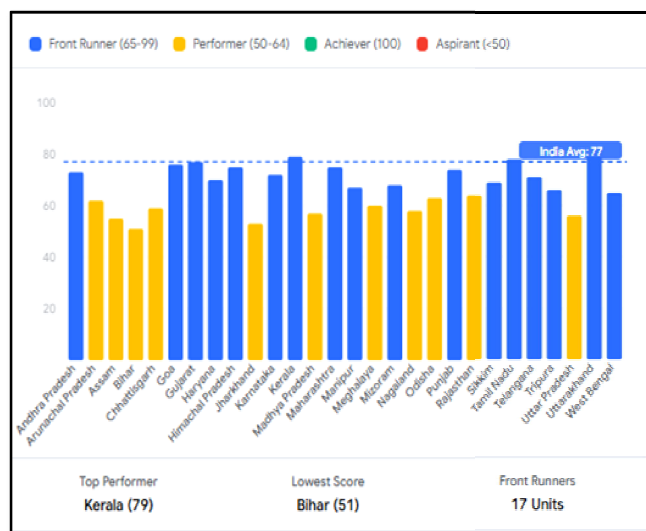


Figure 1: shows of percentage and performance of the SDGs by all state wise

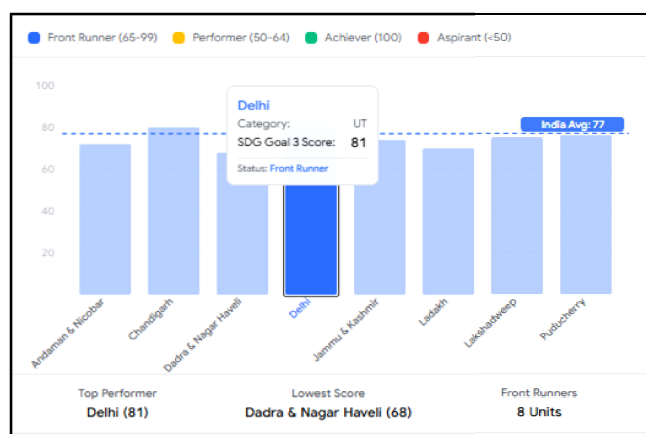


Figure 2: shows of percentage and performance of the SDGs by UT's state wise

Figures 1 and 2 shows this goal's health index scores, which range from 56 to 90 for states and 65 to 93 for union territories. Gujarat leads all states with a performance score of 90, while Delhi ranks first among Union Territories with a score of 93. The overall national baseline average for this specific healthcare score is 77, which leads the pack.

7.1 Sustainable between Nations Healthcare in India:

Sustainable Development Goal 3 (SDG 3: Good Health and Well-being) serves as the core foundation for India's modern public health architecture. Aiming to "ensure healthy lives and promote well-being for all at all ages" by 2030, SDG 3 requires India to balance the healthcare needs of over 1.4 billion people while addressing sharp regional disparities. The absolute centerpiece of India's strategy to meet these global commitments is Universal Health Coverage (UHC). UHC ensures that all citizens gain access to quality financial, diagnostic, and curative services without facing financial ruin or high out-of-pocket expenses.

Sustainable Development Goal 3 (SDG 3) in India coordinates national healthcare policies across four foundational pillars: Maternal & Child

Health, Communicable Diseases, Non-Communicable Diseases, and Health System Strengthening.

Non-Communicable Diseases: Interventions targeting lifestyle conditions, mental health improvements, and cancer screenings.

Health System Strengthening: The infrastructure backbone combining financial health blankets (AB-PMJAY), structural upgrades (PM-ABHIM), and data interoperability (ABDM).

7.2 Targets of Sustainable Development Goal 3:



Figure 3: shows of the four foundational pillars SDG 3

Maternal & Child Health: Aimed at reducing mortality markers via structured delivery care and early screening programs like PMMVY and RBSK.

Communicable Diseases: Targeted elimination drives for infectious conditions, heavily supported by the Pradhan Mantri TB Mukh Bharat Abhiyaan.

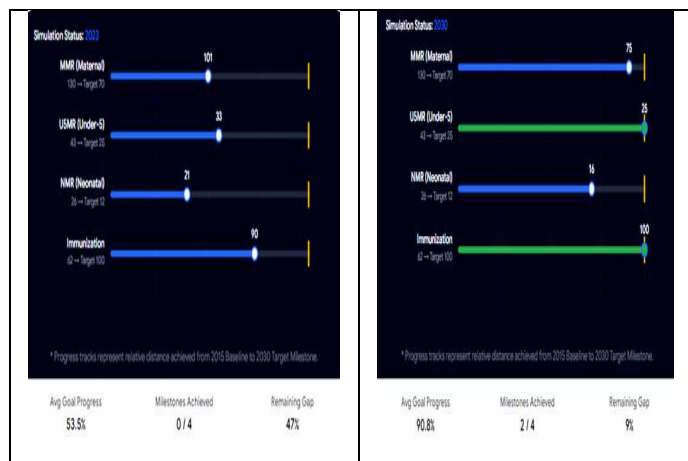
SDG	Targets	Details
3.1	Maternal mortality	By 2030, reduce the global maternal mortality ratio to less than 70 per 100 000 live births.
3.2	Neonatal and child mortality	By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-5 mortality to at least as low as 25

		per 1000 live births.			information and education, and the integration of reproductive health into national strategies and programmes.
3.3.	Infectious diseases	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases, and combat hepatitis, waterborne diseases and other communicable diseases.	3.8.	Universal health coverage	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services, and access to safe, effective, quality and affordable essential medicines and vaccines for all.
3.4.	Noncommunicable diseases	By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment, and promote mental health and well-being.	3.b.	Medicines and vaccines	Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries. Provide
3.7.	Sexual and reproductive health	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning,			

		access to affordable essential medicines and vaccines in accordance with the Doha Declaration on TRIPS and Public Health, which affirms the right of developing countries to the fullest use of the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS agreement) regarding flexibilities to protect public health and, in particular, provide access to medicines for all.			retention of the health workforce in developing countries, especially in least developed countries and small island developing States.
			3.d.	Emergency preparedness	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.
			Target 3.8.	Universal health coverage	This target can be seen as an overarching one that supports the achievement of the other targets. It is derived from the Millennium Development Goals, the new targets and
3.c.	Health financing and workforce	Substantially increase health financing and the recruitment, development, training and			

		the means of implementation.
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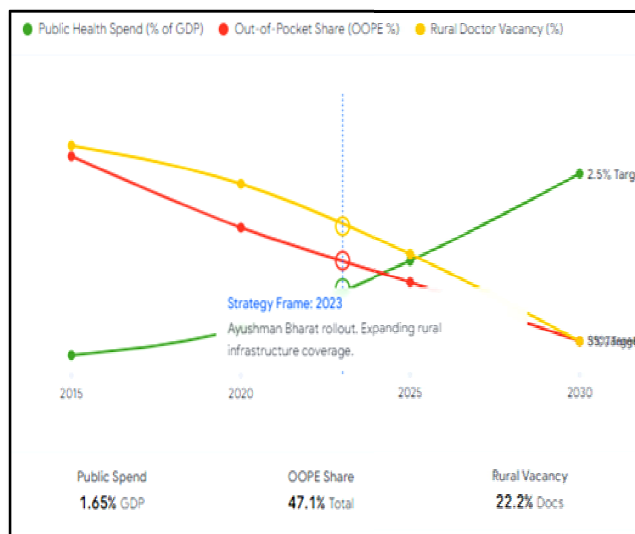
Table 1: shows of the targets of Sustainable Development Goal 3 (Data Source: WHO)



Maternal Mortality Ratio (MMR): The target is to reduce the ratio to less than 70 per 100,000 live births (with several states like Kerala and Tamil Nadu already surpassing this milestone).

Under-Five Mortality Rate (U5MR): Aiming to drop the threshold to 25 or fewer deaths per 1,000 live births globally.

Full Immunization Coverage: Targeting 100% electronic tracking and coverage of all newborns and pregnant women through the digitized U-WIN platform.



Fiscal Commitment: Increase public health spending from ~1.28% to a sustainable 2.5% of GDP to reduce community out-of-pocket costs. Reducing the expert vacancy gap at rural Community Health Centers (CHCs) in order to close the performance difference across states. Scaling up the use of validated ABHA digital health IDs across private networks to improve tracking loops.

8. Conclusions:

Achieving Sustainable Development Goal 3 (SDG 3: Good Health and Well-being) in India remains a complex balance between significant policy success and persistent structural gaps. This study highlights how India has successfully built the digital and structural foundation needed for Universal Health Coverage (UHC). Powerful

frameworks like the Ayushman Bharat (AB-PMJAY) health insurance program and the Ayushman Bharat Digital Mission (ABDM) have successfully protected millions of vulnerable citizens from catastrophic health expenses while creating a modern, data-driven healthcare network. While front-running states like Gujarat and Kerala are on track to meet or exceed the UN 2030 targets for maternal and neonatal mortality, Empowered Action Group (EAG) states are held back by localized specialist vacancies and primary healthcare shortages. Despite expanded safety nets, high out-of-pocket spending on medicines and diagnostics continues to expose rural families to financial shock, staying well above the ideal sustainable benchmark of 7.83%. Ultimately, meeting the 2030 deadline depends on moving from policy creation to local execution. To bridge these gaps, India must systematically increase public health budgets to the targeted 2.5% of GDP, stabilize administrative leadership tenures, and incentivize doctors to fill rural vacancies. By solving these infrastructure disparities, India can transform its digital health architecture into an equitable, sustainable public health model for developing nations worldwide.

9. Conflict of Interest:

The Authors declare no conflicts of interest.

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