09

Studio/Mar.53,A28(i) Mass BCG Vaccination Campaign, February 23, 1953, New Delhi.
Public Resource via Internet Archive

Diagnosing Healthcare Delivery: History, Challenges and Current Status

Health is widely recognised as a basic human right. Healthcare systems play a critical role in promoting health and well-being and in preventing and managing ill-health. In a democratic welfare state such as India, the responsibility for ensuring comprehensive healthcare across all levels of care and categories of interventions lies squarely with the government. The interpretation of this responsibility has varied significantly, shaped by the broader economic and social paradigms within which health policy and systems function. This chapter outlines key principles, policies, programmes and forces that have influenced, and continue to shape, healthcare services from the early and mid-twentieth century to the present.

CHAPTER 09

Diagnosing Healthcare Delivery: History, Challenges and Current Status

Vandana Prasad and Indira Chakravarthi

9.1 Historical trends in healthcare services

9.1.1 1950s–1980s: Vision and planning for universal, comprehensive[1] national healthcare services

The foundations of present-day health policies, plans and programmes can be traced to the late nineteenth and early twentieth centuries, shaped by both colonial administrative priorities and the nationalist movement's critique of them (Amrith 2007, 2011; Banerji 2001). Following independence, the development of healthcare services was largely guided by the recommendations of the Health Survey and Development Committee (1944), widely known as the Bhore Committee.[2] Influenced by developments in national health systems in countries such as

1 Comprehensive services refer to services that cover and meet all kinds of healthcare needs of all ages and groups, from infancy to old age, and not just for a specific illness or physical condition; they also include preventive, promotive and curative care.

2 This committee was set up by the erstwhile colonial government to plan the post-war development of healthcare services in India.

the erstwhile Soviet Union and England, the committee recommended that the state provide as complete a health service as possible as a matter of right, organised through a salaried national health service.[3] It averred that 'under the conditions existing in the country medical service should be free to all without distinction, and that the contribution from those who can afford to pay should be through the channel of general and local taxation' (Health Survey and Development Committee 1946, 14).

Vertical programmes versus integrated services

The Constitution of India outlines the division of responsibilities in the health sector among the Union, state and local governments, with primary responsibility for the delivery of healthcare resting with the states through their respective health departments. The State List vests responsibility for 'public health and sanitation, hospitals and dispensaries' in the state governments. However, several health-related subjects are included in the Concurrent List. In practice, therefore, both the Union and the state governments are involved in the provision and financing of medical and public health services.

While the Bhore Committee and early plans proposed the development of integrated health units at the district level, actual practice diverged from this vision (Health Survey and Planning Committee 1962). Although Primary Health Centres (PHCs) were gradually established,[4] the dominant focus of the health sector through the 1950s and 1960s was on national programmes for the eradication or control of communicable diseases, alongside the family planning programme. These initiatives, commonly described as vertical programmes for disease control,[5] were organised through single-purpose, nationwide structures, with independent lines

3 The recommendation of a whole-time salaried service, and the prohibition of private practice by such salaried doctors was intended to ensure that doctors would be available where their services were most needed and that preventive activities would not suffer.

4 In the 1950s, PHCs were established as part of the broader strategy of rural development through the Community Development Programme (CDP), which was designed to address agriculture, rural industry, education, communication, transport, nutrition, sanitation, and water supply. These PHCs were to be equipped to provide curative, preventive and promotive services for an assigned population, covering a few Sub-Centres (SCs). These services included medical care, control of communicable diseases, promotion of maternal and child health, collection of vital statistics, protection of water supply, promotion of environmental sanitation, conducting school health programmes, and providing family planning services.

5 Since the 1960s, the effectiveness of vertical programmes has been a matter of debate, gaining prominence around the Alma-Ata Declaration of 1978, in 1993 with the propagation of an essential package of care by the World Bank, and later with the rise of global PPPs such as the Global Fund (Atun, Bennett, and Duran 2008). In vertical approaches (also referred to as stand-alone disease management or disease control programmes), interventions are delivered through systems that typically have separate administration and budgets, with varying degrees of structural, funding and operational integration with the wider health system. In the integrated model (also known as horizontal approaches or programmes), services do not have separate administration or budgets and are typically delivered through health facilities that provide routine or general health services. Vertical programmes have been promoted with the rationale that concentrating on a few well-focused interventions is an effective way to maximise the impact and timeliness of available resources, rather than waiting for the development of the general health system to make improved service delivery viable.

of command extending from the national to the village level. Separate cadres of workers were trained for each programme,[6] reinforcing their functional isolation. It has been noted that, in the history of public health in western countries, such vertical programmes were rarely employed to address communicable diseases (Banerji 1985a, 136).

In India, however, this preoccupation with vertical programmes resulted in the neglect of a permanent network of rural health institutions, as well as the diversion of already limited human resources towards programme-specific activities. Subsequent committees emphasised the advantages of an integrated health service, advocating a unified approach to health problems in place of the vertical model, and thereby laying the foundation for the idea of comprehensive health services.[7]

By the Fifth Five-Year Plan period (1975–80), the government acknowledged that, despite improvement in indicators such as declining infant mortality and increasing life expectancy, medical infrastructure in rural areas remained inadequate. Following the recommendations of the Study Group on Medical Education and Support Manpower (Government of India 1975), two centrally sponsored schemes were introduced in 1977: (i) the Community Health Worker (CHW) scheme, which envisaged a trained health volunteer selected by the community for every village or population of 1,000; and (ii) Re-orientation of Medical Education (ROME) scheme, aimed at restructuring medical education and strengthening referral linkages with district health facilities.

The 1970s: Alma-Ata Declaration and ICSSR-ICMR Study Group

The Alma-Ata Declaration of 1978 on PHC, along with the call for 'Health for All by 2000 AD', emerged from the International Conference on Primary Health Care, jointly convened by the World Health Organisation (WHO) and United Nations Children's Fund (UNICEF). This declaration represented the culmination of several developments during the 1960s and 1970s. These included the adverse impacts of vertical disease control programmes in many developing countries, the demonstrated effectiveness of community health worker programmes in countries such as Bangladesh, China, Costa Rica, Cuba, India, Mexico and the Philippines, and a broader questioning of science, technology and the hospital-centred biomedical model of healthcare (Cueto 2004; Litsios 2002; McKeown 1976; Illich 1975).

6 For instance, the National Malaria Eradication Programme, started in 1953 with aid from the Technical Cooperation Mission of the USA and technical advice from the WHO, required the training of 1,50,000 workers across 400 units for the preventive and curative aspects of malaria control (Banerji, 1985a).

7 Chadha Committee Report on the National Malaria Eradication Programme (Government of India 1963), Committee on Integration of Health Services (Government of India 1967) and the Kartar Singh Committee (1973).

Health items in State and Concurrent List: Article 246, Seventh Schedule of the Constitution of India

State List

1. Public health and sanitation; hospitals and dispensaries.

Concurrent List

1. Lunacy and mental deficiency, including places for the reception or treatment of lunatics and mental deficients.
2. Drugs and poisons, subject to the provisions of entry 59 of List I with respect to opium.
3. Economic and social planning [20A]. Population control and family planning.
4. Social security and social insurance; employment and unemployment.
5. Welfare of labour including conditions of work, provident funds, employers' liability, workmen's compensation, invalidity and old age pensions and maternity benefits
6. Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour.
7. Legal, medical and other professions
8. Prevention of the extension from one state to another of infectious or contagious diseases or pests affecting men, animals or plants.
9. Vital statistics including registration of births and deaths

Source: Seventh Schedule, Article 246, Constitution of India https://www.mea.gov.in/images/pdf1/S7.pdf. Terms from the Constitution, as of 1950.

The Alma-Ata framework defined PHC not only as a 'level of care', but also as an 'approach to health systems development'. It located health within a wider global and political context, calling for peace, reductions in military expenditure, and the establishment of a 'New International Economic Order' to address disparities in health outcomes between developed and developing countries. It defined PHC as 'essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally available to the community through their full participation, and at a cost that the community and country can afford to maintain at every stage in the spirit of self-reliance and self-determination'. It further located PHC as an integral part of both the country's health system and its broader social and economic development, constituting the first level of contact within a continuing health-care process (WHO 1978).

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At the same time, in India, the Indian Council of Medical Research (ICMR) and the Indian Council of Social Science Research (ICSSR), two major government institutions, jointly prepared an *Alternative Strategy for Health Services in India* (1981). This report called for a radical shift, advocating that healthcare services be firmly rooted in the community, in place of the existing 'top-down, elite, curative and urban-oriented, centralised and bureaucratised system' (ICSSR and ICMR 1981). The first National Health Policy (NHP) of 1983 reiterated many of the elements of these earlier recommendations, including those of the Alma-Ata Declaration and the ICMR-ICSSR report, and called for an integrated, comprehensive approach to the future development of health services, medical education and research (Government of India 1983).

Despite these recommendations and commitments, the primary healthcare approach was never implemented in its comprehensive form. Instead, selective vertical programmes continued to be promoted from the 1980s onwards as a substitute for the development of an integrated health system. The National Commission on Macroeconomics and Health (NCMH) offered a particularly strong assessment of the consequences of this shift:

> *The NHP, 1983 made a strong policy commitment to establish comprehensive primary health care, based on the active involvement of the community and intersectoral linkages to health determinants such as nutrition, water, sanitation, etc. Such an*

> *approach, if implemented, would have helped avert the premature death of an additional 1.5 million infants and 800,000 maternal deaths. The gains could have been impressive, but the policy was hardly implemented. Worse, strategies contrary to what was stated in the Alma-Ata Declaration to which India was a signatory and was reaffirmed in the NHP 1983 were adopted, such as the selective primary health care approach'* (Government of India 2005, 48–49).

Evidently, 'considerable thought has been given to reorienting this health service system and over the years, several commissions, committees, and study groups have examined it. Almost all of them have emphasised the need for radical change' (Banerji 1985b). Yet, the changes that did occur in the health sector were of a very different kind from those envisaged by earlier committees and public health practitioners. Rather than strengthening state-led, comprehensive healthcare provision, the economic reforms initiated in 1991 under liberalisation and globalisation reoriented the sector towards an expanding role for private enterprise, positioning healthcare increasingly as an industry.

9.1.2 1990s onwards: Structural adjustment programmes and health sector reforms

The unfinished task of establishing a national healthcare service, combined with persistent deficiencies in the public healthcare system, was increasingly invoked to justify a series of health sector reforms. These reforms were premised on the view that greater competition in service provision, facilitated by an expanded role for the private sector, would improve performance. Market principles such as competition, efficiency and consumer choice were thus advanced as the basis for reorganising healthcare systems. This rationale drew on influential policy documents of the World Bank, including *Financing Health Services in Developing Countries* (World Bank 1987) and the World Development Report 1993: *Investing in Health* (World Bank 1993). These argued that while the State should retain an overall stewardship role in the health sector, it need not remain a direct provider of services beyond a narrowly defined set of essential interventions.

The health sector reforms initiated in India by the Union and state governments entailed a range of measures (Ravindran 2007; Government of India 2005; Qadeer et al. 2001).

- **i.** the provision by the government of a limited 'basic' or 'essential' package of preventive and curative services targeted at the poor, comprising low-cost and high-impact interventions such as immunisation, programmes addressing micronutrient deficiencies, and the control of select infectious diseases;
- **ii.** the expansion of public-private partnerships (PPPs);
- **iii.** the privatisation of specialised and tertiary-level services;

iv. the introduction of user charges in public facilities, alongside constraints on public health expenditure;

v. World Bank-assisted Health Sector Development Projects (HSDPs) aimed at strengthening public health infrastructure; and

vi. the introduction of vouchers and other demand-side financing programmes

In addition, these reforms stressed changes in management practices, with a focus on improving efficiency and effectiveness in the implementation of centrally administered programmes.

National Rural Health Mission (NRHM) (2005), High-Level Expert Group on Healthcare (2011) and health assurance

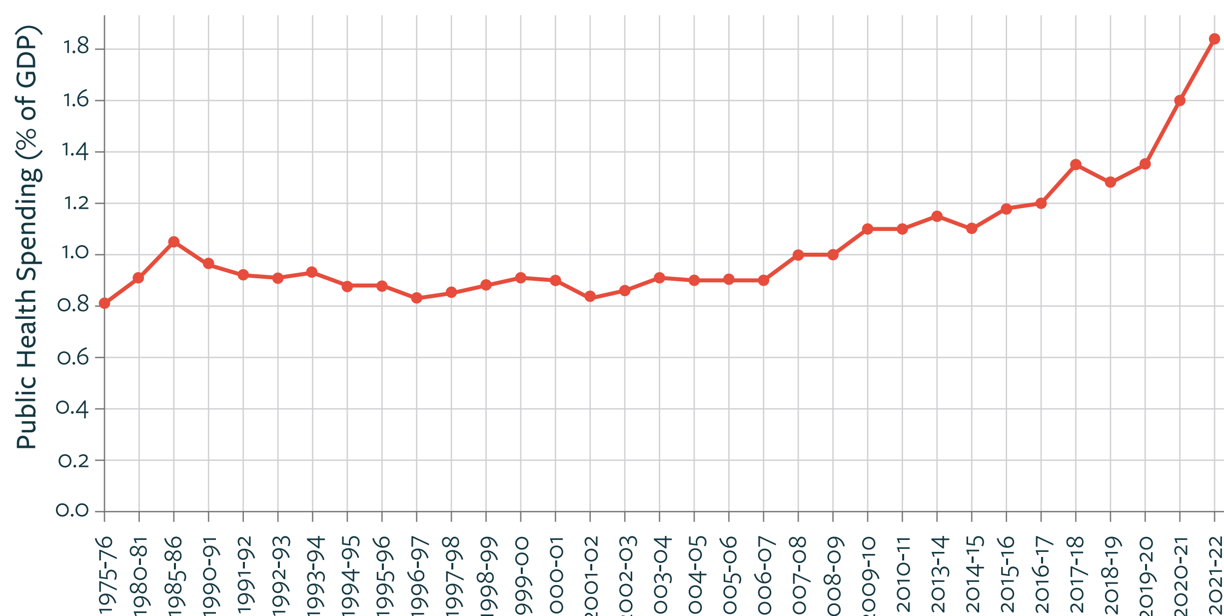
Notwithstanding significant gaps in policy implementation and persistent inadequacies in public healthcare services, improvements in socio-economic conditions, reductions in poverty and the gradual expansion of health infrastructure contributed to notable gains in key health indicators. Life expectancy at birth increased from 32 years in 1947 to 66 years, while the infant mortality rate (IMR) declined by over 70 percentage points between 1947 and 1990 (Government of India 2005; Qadeer et al. 2001).

However, these gains were accompanied by a contraction in public investment in the health sector. From the late 1980s onwards, there were substantial cuts in health expenditure, reflected in a decline in the share of health in the revenue budgets of many states—from 7.02 per cent in 1985–86 to 4.97 per cent in 2003–04 (Government of India 2005, 71–72). This fiscal retrenchment had adverse consequences, including stagnation—and in some states, even reversals—in IMR during the period 1992–93 and 1998–99 (see Figures 9.1 and 9.2; Table 9.1).

Health sector reforms had a widespread impact on the functioning of public health services, as documented across different parts of the country. In part as a response to these developments, the National Rural Health Mission (NRHM) was launched in April 2005 with the objective of undertaking an 'architectural correction' of the health system to strengthen public health management and service delivery. The formulation of NRHM was shaped by the involvement of multiple actors, including a broad coalition of civil society organisations, notably the Jan Swasthya Abhiyan (People's Health Movement), as well as public health practitioners and academics (Dasgupta and Qadeer 2005; Pandav et al. 2005; Sundararaman et al. 2005).

NRHM subsumed several major national programmes, namely the Reproductive and Child Health II project (RCH II), the National Disease Control Programmes (NDCP) and the Integrated Disease Surveillance Project (IDSP). It incorporated a number of significant elements that promoted decentralisation and communitisation, long advocated by civil society groups and public health experts. Its core

Figure 9.1: Trends in public health spending (as a percentage of GDP)



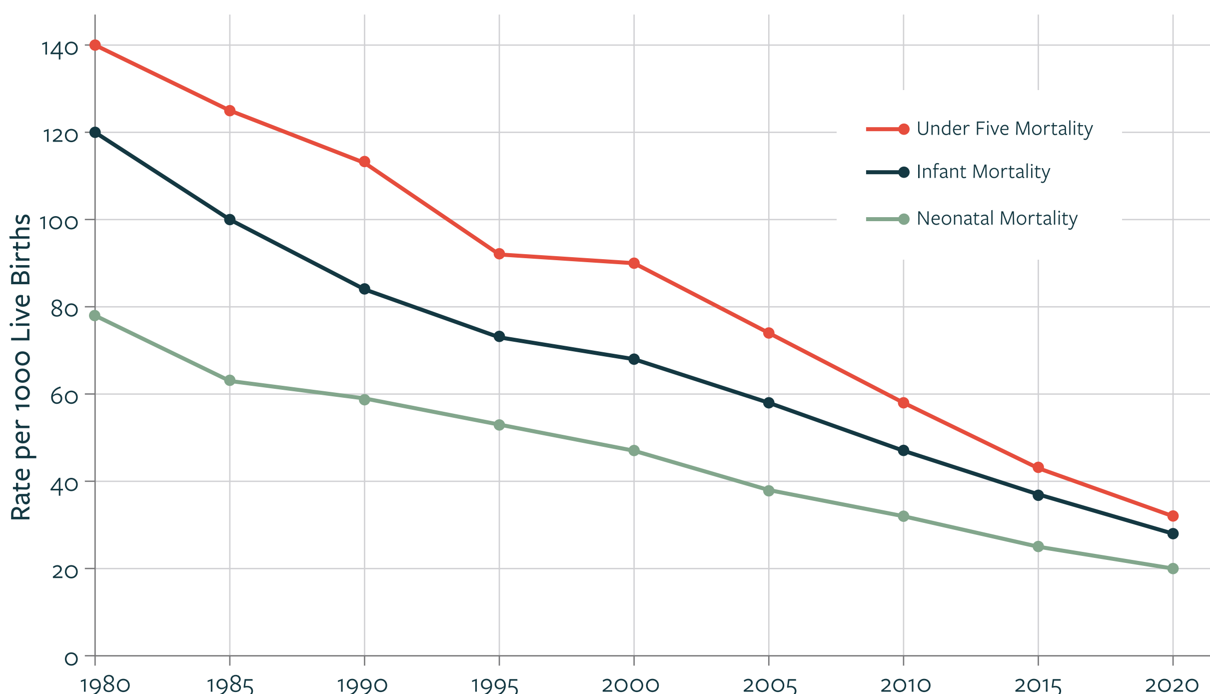
Sources and notes: Up to 2003–04: Demand for Grants for various years, Commission on Macroeconomics and Health.
From 2004–05 to 2010–11: Choudhury, Mita, and H. K. Amar Nath. 2012. 'An Estimate of Public Expenditure on Health in India'. National Institute of Public Finance and Policy (NIPFP), New Delhi, May.
From 2013–14 to 2021–22: National Health Accounts, National Health Systems Resource Centre. Ministry of Health and Family Welfare, Government of India.

Table 9.1: India's demographic indices

Year	TFR	Life Expectancy Male	Life Expectancy Female	CBR	CDR	IMR
1951	6.0	37.2	36.2	40.8	25.1	148
1961	5.7	44.2	42.7	39.3	18.9	138
1971	5.0	50.9	50.2	37.1	17	120
1981	4.5	55.4	55.7	37.2	19	110
1991	3.8	58.1	58.6	29.5	9.8	80
1996	3.5	59	59.7	27.4	8.9	72
2001	3.1	62.3	64.6	25.4	8.5	66
2006	2.8	64.0	66.9	23.5	7.7	57
2011	2.4	65.8	69.3	21.8	7.0	44
2016	2.3	68.2	70.7	20.4	6.7	34
2021	2.0	68.5	72.5	19.3	9.3	27

Sources and notes: Data from 1951–1996: Government of India, Ninth Five-Year Plan, 1997–2002 (Draft), Planning Commission, New Delhi.
Data from 2001–2021: Sample Registration System Annual Statistical Report (Various Years), Registrar General of India. CBR-crude birth rate; CDR- crude death rate; IMR- infant mortality rate.

Figure 9.2: Trends in child mortality



Sources and notes: (1980–2000): SRS Bulletin 2002; taken from 'Need for Dedicated Focus on Urban Health within National Rural Health Mission', S. Agarwal and K. Sangar (2005).
Plot reconstructed from the above paper; SRS Bulletin (2002) is missing from the Census India Website catalogue (IMR, all years): Sample Registration System Annual Statistical Report (Various Years), Registrar General of India.
(U5MR and NMR, 2000, 2015 and 2020): Sample Registration System Annual Statistical Report (Various Years), Registrar General of India.
(U5MR and NMR, 2005 and 2010): UN Inter-agency Group for Child Mortality Estimation, UNICEF (childmortality.org); WHO..

strategies included decentralised planning and management at the village and district levels, by training and enhancing the capacity of Panchayati Raj Institutions (PRIs) to manage, control and oversee public health services. The mission also introduced a female community health activist in each village—the Accredited Social Health Activist (ASHA)—and prioritised the strengthening of public health infrastructure, particularly at the village, primary and secondary levels. Additional components included the mainstreaming of indigenous systems of medicine under AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy), the expansion of public-private partnerships (PPPs), efforts towards regulating the private sector, and the introduction of social insurance mechanisms.

Health system strengthening was to be supported through increased public funding, organisational and managerial reforms, the provision of untied funds at various levels, and greater autonomy in decision- making. Decentralised planning was to be operationalised through district health plans, alongside institutional mechanisms such as Rogi Kalyan Samitis for hospital management, village health and sanitation committees (VHSCs) and processes of community-based monitoring (Hota and Dobe 2005; Taneja 2005). Another important component was the 'Janani

Suraksha Yojana' (JSY), a conditional cash transfer programme designed to incentivise institutional deliveries among women from lower socio-economic groups (Kumar 2005).

Alongside these developments, the late 2000s witnessed another significant conceptual shift that moved away from the PHC approach; the introduction of Universal Health Coverage/Care (UHC).[8] This shift increasingly positioned health insurance as a central mechanism for financing and accessing healthcare, as discussed in detail in Chapter 10. In 2010, the erstwhile Planning Commission constituted a High-Level Expert Group (HLEG) on UHC to develop a framework for its implementation over two or three plan periods (Government of India 2011). The HLEG defined universal healthcare as 'equitable access to all Indians to affordable, accountable, appropriate healthcare services...delivered to individuals and populations, with the government being the guarantor and enabler, although not necessarily the only provider of healthcare and related services' (Government of India 2011). Significantly, the HLEG also recommended that general taxation should be the principal source of healthcare financing and that no user fees should be levied for health services.

These competing and, at times, contradictory policy directions were subsequently consolidated through the launch of the Ayushman Bharat Mission in 2018. The mission comprises two principal components: Health and Wellness Centres (HWCs), intended to strengthen comprehensive primary healthcare through improved human resources, drugs, and diagnostics at the primary level; and the Pradhan Mantri Jan Arogya Yojana (PMJAY), a health assurance scheme that has, in practice, assumed greater prominence. Urban health infrastructure, meanwhile, remained fragmented and institutionally diffuse, involving multiple agencies such as municipal corporations, state government departments, and Union government schemes, including the Central Government Health Scheme (CGHS) and Employee State Insurance Corporation (ESIC). The National Urban Health Mission (NUHM) was launched in 2012 to address the healthcare needs of the urban Indian population, and in 2013, the NRHM and NUHM were subsumed under the National Health Mission (NHM).

8 Universal healthcare may refer to the provision of good-quality health services to the entire population as a right, irrespective of ability to pay, social status or place of residence, through a publicly funded national health service system. These principles have been a central feature of welfare states and of the planning process in India since the 1940s. They also include a central role for the government in healthcare, a public commitment to collective responsibility and redistribution, public values supporting health equity and solidarity, a well-functioning health system providing financial protection and a range of services, financing through general taxation, and provision through an efficient, predominantly horizontal health system rather than a 'vertical' one. However, in recent times, 'universal healthcare', 'universal health coverage' and 'universal access to healthcare' are often used interchangeably to refer to systems that provide or ensure these benefits largely through health insurance. In its ideal form, UHC is not merely about extending the existing healthcare system to cover the entire population, but about transforming it into one in which healthcare is available to all as a right rather than as a commodity, as part of the broader goal of achieving 'health for all' (see Gaffney 2013; Bump 2015).

Health Policy Milestones

1946
Bhore Committee
proposed the development of integrated health units.

1978
Alma Ata Declaration
with the call for 'Health for All by 2000 AD' defined PHC not only as a 'level of care' but also as an 'approach to health systems development'.

1983
National Health Policy
to establish comprehensive primary health care

1993
World Development Report Investing in Health Report
the State should retain an overall stewardship role in the health sector but need not remain a direct provider of services

2005
National Rural Health Mission with the objective of strengthening public health management and service delivery, introduced the ASHA programme

2011
High-Level Expert Group developed a framework for the implementation of UHC

2013
National Health Mission
Integrated the National Urban Health Mission (NUHM) (launched in 2012) and the NRHM

2017
National Health Policy
set a goal of public health expenditure of 2.5% of GDP by 2025

2018
Ayushman Bharat Mission
introduced the PMJAY health assurance scheme and Health and Wellness Centres for comprehensive primary health care

9.2 Transformations in the private healthcare sector

While the public healthcare services did not expand as envisaged, there was, contemporaneously, substantial growth of the private sector across multiple domains, including medical care, medical education and training, medical technology and diagnostics, and pharmaceutical manufacturing (Nandraj et al. 2001; Baru 1998). A central component of health sector reforms in India has been the active promotion of the private sector as an alternative to public provisioning, and arguably at its cost (Prasad 2024). This has facilitated its expansion across the country, as well as its integration into government provisioning through PPPs. The share of hospitals within the private healthcare enterprises sector rose from 15 per cent in 2000–01 to 26 per cent in 2010–11, large-sized enterprises growing at a faster rate than small and medium-sized ones (Hooda 2015).

The scale of private sector enterprise is reflected in multiple indicators. Approximately 68 per cent of an estimated 15,097 hospitals and 37 per cent of nearly 6,25,000 hospital beds are in the private sector. In 2017–18, around 70 per cent of outpatient visits and 58 per cent of hospitalisations took place in private facilities. The sector now occupies a significant position not only in inpatient and outpatient care, but also in diagnostic services, pharmaceutical production, and the education and training of human resources for health (Selvaraj et al. 2022).

Since the 1990s, this sector has undergone a further transformation characterised by corporatisation and financialisation, leading to the emergence of a large healthcare industry (Government of India 2017; Chakravarthi et al. 2023, 2017). It has increasingly attracted both domestic and global investment, with projections indicating continued growth at an annual rate of 8 per cent, from US$ 98.98 in 2023 to US$ 193.59 billion by 2032 (Sarwal et al. 2021; IBEF 2025). Corporate hospitals have introduced new forms of healthcare provision for certain patient groups and have also influenced practices and expectations across the wider sector. The increasing centrality of profit in healthcare delivery has implications for patterns of medicalisation and tertiarisation, with consequent escalation of costs (Prasad 2024).

At the same time, regulation and protection of patients against irrational and unnecessary medical practices, drugs, and diagnostics remain incomplete. Although the Clinical Establishments (Registration and Regulation) Act was enacted in 2010 to regulate the sector, its adoption and implementation vary considerably across states (Shukla 2025; Nandraj, Gupta and Randhawa 2021; Keshri 2018). In practice, many private facilities— particularly corporate hospitals—prefer voluntary accreditation through national or international bodies such as the National Accreditation Board for Hospitals (NABH). Patients' rights continue to receive limited attention, despite recent efforts by civil society groups and the National Human Rights Commission to foreground them (NHRC 2019).

Key Health Indicators: Definitions & Formulae

FERTILITY

Crude Birth Rate

(CBR)

Number of live births per 1,000 mid-year population in a given year.

(Live births during year ÷ Mid-year population) × 1000

Total Fertility Rate

(TFR)

Average number of children a woman would bear if she survived childbearing age (15–49) at current age-specific rates.

5 × Σ ASFR (ages 15–49) ÷ 1000

Quick Reference

CBR
Live births / 1,000 pop

TFR
Avg children / woman

MORTALITY

Crude Death Rate

(CDR)

Number of deaths per 1,000 mid-year population in a given year.

(Deaths during year ÷ Mid-year population) × 1000

Infant Mortality Rate

(IMR)

Deaths of infants under 1 year per 1,000 live births in a given year.

(Infant deaths ÷ Live births) × 1000

Neo-natal Mortality Rate

(NMR)

Deaths of infants aged less than 29 days per 1,000 live births. Comprises early (<7 days) and late (7–28 days) NMR.

(Infant deaths (<29 days) ÷ Live births) × 1000

Under-5 Mortality Rate

(U5MR)

Number of deaths per 1,000 mid-year population in a given year.

P(death before age 5) per 1,000 live births

Quick Reference

CDR
Deaths / 1,000 pop

IMR
Infant deaths / 1,000 births

NMR
Deaths <29 days / 1,000

NMR
Deaths before age 5 / 1,000

Life expectancy
Avg years of life at birth

Life Expectancy at Birth (e_0)

The average number of years a newborn is expected to live if current age-specific mortality rates prevail throughout its life. Derived from life tables constructed using age-specific death rates from the SRS.

Key Health Indicators: Definitions & Formulae

HEALTH FINANCING

Total Health Expenditure (THE)

Current and capital expenditures incurred by Government and Private sources including External funds. Expressed as % of GDP (relative to economic output) or per capita (per person).

Gov't + Private + External expenditure

Current Health Expenditure (CHE)

Recurrent (operational) expenditures for healthcare purposes, net of all capital expenditures. CHE as % of THE indicates operational spending that impacts health outcomes in that particular year.

THE – Capital expenditures

Quick Reference

THE
Total health spend

CHE
Recurrent health spend

OOPE
Household direct payments

Out of Pocket Expenditure (OOPE)

Expenditures directly made by households at the point of receiving healthcare. Expressed as % of THE — low government health expenditure often implies high dependence on household OOPE, which is a key equity and financial protection concern. Based on SHA 2011 framework.

Direct household payments at point of care

Catastrophic Health Expenditure

When annual household expenditure on health as a proportion of total annual household consumption expenditure crosses a threshold then it is called Catastrophic Health Expenditure. In practice, Catastrophic Health Expenditure is calculated at three thresholds — at 10 per cent, 25 per cent and 40 per cent.

Sources

CBR · TFR · CDR · IMR · NMR · U5MR · Life Expectancy

Sample Registration System Reports, Registrar General of India, Office of the Registrar General & Census Commissioner, India, Ministry of Home Affairs, Government of India.

THE · CHE · OOPE

National Health Accounts Reports, National Health Systems Resource Centre (NHSRC), Ministry of Health and Family Welfare, Government of India.

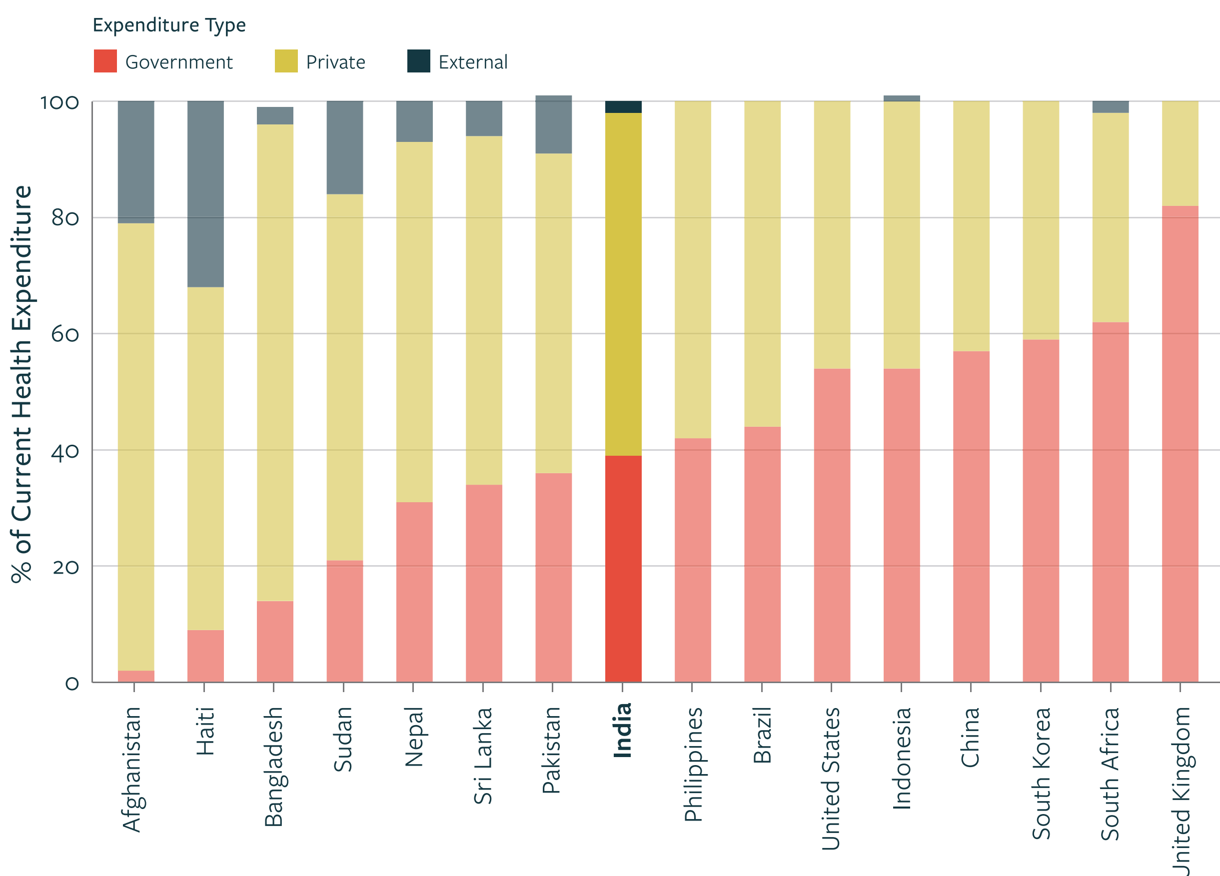
9.3 National Health Mission: Trends and status

9.3.1 Financial resources

If the public health system is to achieve the objectives outlined in the preceding sections—particularly equitable access for marginalised and vulnerable populations, without user charges at the point of care—it requires substantial financial investment. Estimates of required public spending typically range from 5–6 per cent of gross domestic product (GDP) in WHO reports (WHO 2010) to at least 2.5 per cent in Indian policy discussions, including those of the HLEG, with a proposed increase to 3 per cent by 2022. Commitments to allocate 2.5 per cent of GDP have also appeared in political party manifestos and government policy documents. Actual public expenditure, however, remains well below these levels, consistently under 2 per cent of GDP, with current estimates at around 1.8 per cent (PRS Legislative Research 2025).

The overall pattern of health financing continues to be characterised by a high reliance on out-of-pocket expenditure (OOPE), defined as direct household spending on healthcare, including in-patient costs, transport, registration fees, food, and lodging, which accounted for approximately 60 per cent of total health expenditure in 2023 (Global Health Expenditure Database: WHO 2023). Although the share

Figure 9.3: Public and private split in the total health expenditure

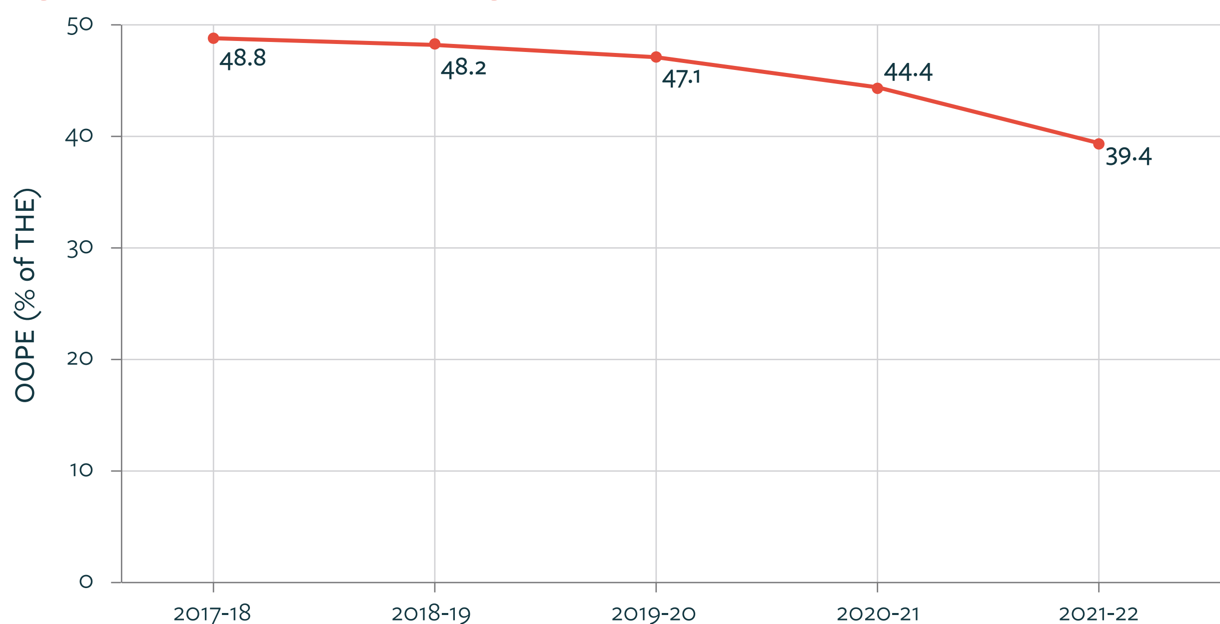


Sources and notes: 2023 Global Health Expenditure Database, WHO, via World Bank. Values for some countries may not sum to exactly 100% due to rounding in the source data.

of private expenditure has declined over time, absolute per capita spending has continued to rise (Figures 9.4 and 9.5), suggesting that total expenditures on health have only increased, whether out of pocket or by government, indicating an overall increase in total health expenditure.

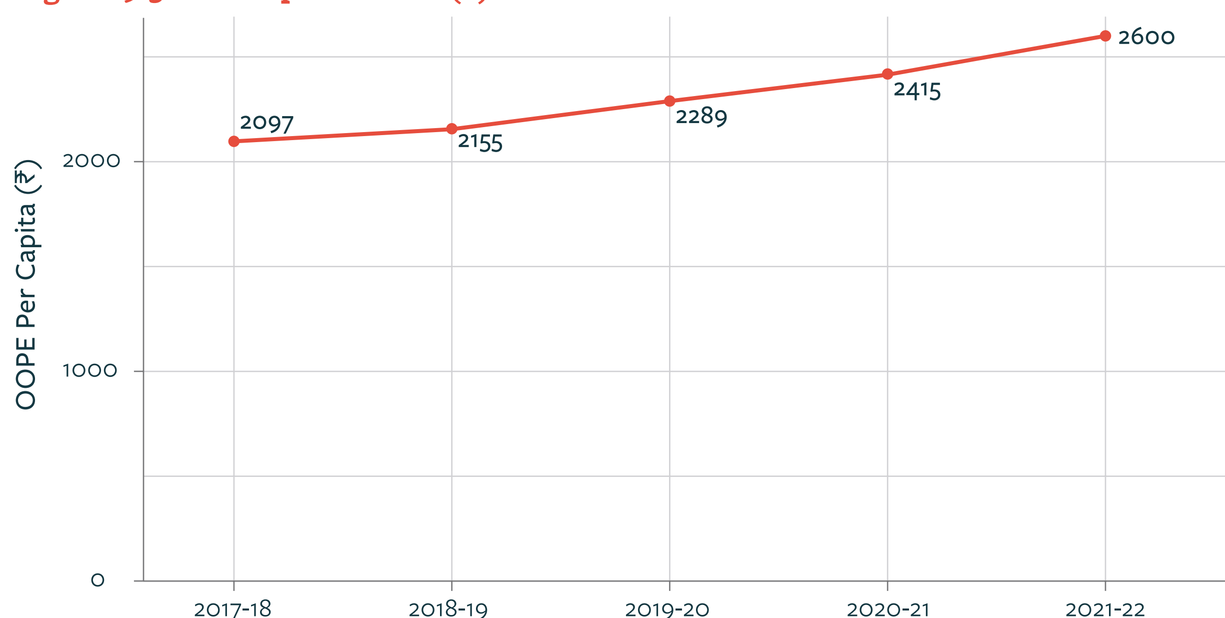
There are also significant variations across states in both OOPE and per capita health expenditure (Figures 9.6 and 9.7). These differences do not necessarily correspond to variations in health needs or outcomes, but instead reflect a range of factors, such as access to services and patterns of health-seeking behaviour

Figure 9.4: OOPE as a percentage of total health expenditure



Sources and notes: National Health Accounts Reports (various years), National Health Systems Resource Centre, Ministry of Health and Family Welfare

Figure 9.5: Per capita OOPE (₹)

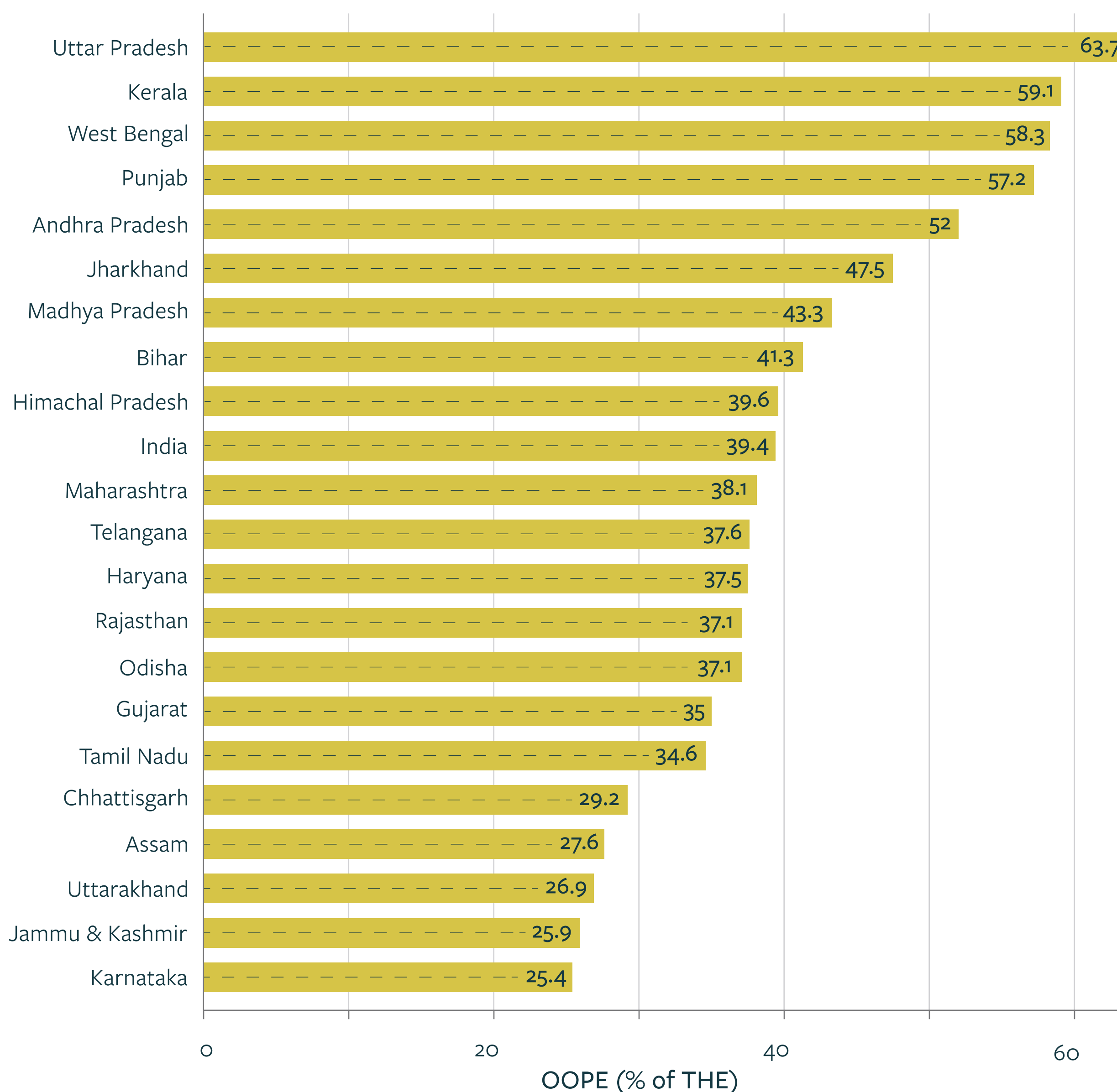


Sources and notes: Per year in current prices. National Health Accounts Reports (various years), National Health Systems Resource Centre, Ministry of Health and Family Welfare

shaped by poverty and other socio-economic conditions. For instance, Kerala records among the highest per capita health expenditures while also demonstrating relatively strong health outcomes, whereas Bihar has among the lowest per capita health expenditures alongside a high burden of disease and poorer health indicators. Even where states appear similar in proportional terms, underlying contexts differ substantially. Kerala and Uttar Pradesh, for example, both rank high in OOPE as a share of total health expenditure, yet differ sharply in absolute per capita spending (13,343 and 4,733 respectively for 2021–22) and health outcomes (IMR 6 and 37, respectively) (NHSRC 2023b; SRS Bulletin 2025).

These patterns underscore the complexity of health expenditure trends, which cannot be interpreted in isolation from broader factors such as the availability of services, failures in preventive care, patterns of medicalisation, and the

Figure 9.6: State-wise OOPE as a percentage of total expenditure



Sources and notes: (2021–22) National Health Accounts Reports, National Health Systems Resource Centre, Ministry of Health and Family Welfare.

Figure 9.7: State-wise per capita OOPE

Sources and notes: (2021-22) National Health Accounts Reports, National Health Systems Resource Centre, Ministry of Health and Family Welfare

financial consequences of health-seeking behaviour, including indebtedness. Methodological limitations in measuring and comparing OOPE further complicate such analysis (Mukhopadhyay, Bose, and Kadarpeta 2025).

9.3.2 Catastrophic health expenditure

Catastrophic health expenditure is a critical metric used to assess the financial burden of healthcare on households. It refers to levels of medical spending that are sufficiently high to threaten a household's economic stability, often pushing families into poverty. It is defined in terms of annual household health expenditure exceeding specified thresholds—commonly 10 per cent or more—of total annual household consumption expenditure. These thresholds signal varying degrees of

financial stress, with higher levels indicating severe consequences such as the depletion of savings and assets during episodes of ill health. The implications of such expenditure are unevenly distributed, as similar levels of OOPE may be absorbed differently across income groups. Data on catastrophic health expenditures in India remain limited. One available analysis, based on National Sample Survey (NSS) Household Consumption on Health (2017–18) conducted by the Ministry of Statistics and Programme Implementation, points to a concerning situation (see Table 9.2). The estimates capture the proportion of households incurring health expenditure at 10 per cent, 25 per cent, and 40 per cent thresholds, disaggregated by caste.

9.3.3 Staffing and gaps

The functioning of the health system is critically dependent upon the availability of skilled human resources. Policy concerns in this area pertain to increasing contractualisation and informalisation of a wide range of health personnel, including doctors and nurses. Simultaneously, persistent staffing gaps continue to affect the public health system, despite a fair output from the medical education sector, much of which is subsidised by the government. Estimates indicate that, in 2020, the staffing gap stood at 11.5 per cent for allopathic doctors, 60 per cent for specialists, and 19 per cent for nurses and pharmacists (Kumar and Sarwal 2022). A recent scoping review (Mehta et al. 2024) notes that India has a density of 20.6 doctors, nurses, and midwives per 10,000 population, compared to the WHO benchmark of 44.5. State- and rural-urban differentials are well established, and this ratio does not adequately capture conditions in geographically remote and underdeveloped areas. For instance, a recent state- and district-wise report by the National Health Systems Resource Centre (NHSRC 2023b) presents a complex and wide-ranging picture, a few snapshots of which are summarised in Table 9.3.

Table 9.2: Catastrophic health expenditure at three thresholds

Caste	Percentage of Households facing CHE at three thresholds		
	10 Percent	25 Percent	40 Percent
Scheduled Tribes (ST)	23.44	10.29	5.7
Scheduled Castes (SC)	31.82	14.61	8.64
Other Backward Classes (OBC)	37.85	17.83	10.82
Others	42.58	20	12.07
Total	36.92	17.24	10.36

Sources and notes: Household Social Consumption on Health (2017–18), National Sample Survey, Ministry of Statistics and Programme Implementation. When annual household expenditure on health as a proportion of total annual household consumption expenditure crosses a threshold then it is called Catastrophic Health Expenditure. In practice, Catastrophic Health Expenditure is calculated at three thresholds — at 10%, 25% and 40%.

Table 9.3: Percentage vacancies as per NHM sanctions for select states

State	MO (MBBS) Regular	MO (MBBS) Contractual	Specialist Regular	Specialist Contractual
Karnataka	43	43	22	36
Chandigarh	36	9	3	17
Manipur	33	71	49	0
Assam	32	7	0	40
Mizoram	8	6	0	30
Bihar	2	76	61	81
Tamil Nadu	2	4	5	23
Chhattisgarh	0	55	68	66
Kerala	0	2	7	32

Sources and notes: National Health Systems Resource Centre, Ministry of Health and Family Welfare 2023.

Even state-level data often fails to reflect the concentration of personnel in urban centres relative to remote areas, with limited availability of state-level mapping per facility in the public domain or within state systems (Prasad, Hegde, and Prasad 2022). Qualitative studies examining recruitment and retention challenges remain limited but are consistent in identifying a common set of factors; migration, 'brain drain', inadequate salaries, poor working conditions, lack of basic amenities, constraints related to children's education, limited potential for post-graduate training and career advancements, and perceived arbitrariness in transfer policies (Mehta et al. 2024; Murthy et al. 2012; Kadam et al. 2012, Rao et al. 2013).

Some of these long-standing issues have been addressed through task-shifting and related measures. These include the expansion of PHC services through health and wellness centres, now termed Ayushman Arogya Mandirs (AAMs), staffed by Community Health Officers (CHOs) drawn from the nursing cadres or AYUSH practitioners. Certain states have also experimented with alternative cadres, such as the Rural Medical Assistants (RMAs) in Chhattisgarh (WHO 2022). Telemedicine has been proposed and, in some instances, adopted as a means of improving access to specialist care, including within AAMs (Prasad, Hegde, and Prasad 2022). At the same time, the persistence of human resource constraints is frequently invoked to justify the expansion of private sector involvement in healthcare, with implications of the kind discussed in the previous section.

9.3.4 Community health workers: ASHAs

The creation of the ASHA cadre under the NHRM marked a significant institutionalisation of community-based health work, drawing on earlier state-level experiences such as the Mitanin programme in Chhattisgarh (Garg et al. 2023). Conceived as a mechanism for community participation and local accountability, the ASHA was intended to act as a link between the health system and the community. However, its implementation has resulted in ASHAs becoming responsible for the delivery of a wide range of health programmes at the community level (Mishra 2014), while remaining outside the formal health workforce, without any recognition, remuneration or social security as a formal health worker.[9] This was highly evident during the COVID-19 pandemic, when ASHAs played a vital role in providing relief and linking communities with the health system (Menon, Bisht, and Nair 2025), but received only symbolic recognition rather than any long-term security (Asthana and Mayra 2022).

According to the ASHA update (NHSRC 2023a), nearly one million ASHAs are engaged under the NHM, with only about 80,000 in urban areas. Their compensation consists of a fixed remuneration of ₹2000 per month supplemented by task-based incentives across more than 70 activities. While some state governments provide additional financial support through top-ups or fixed honoraria—such as ₹10,000 per month in Andhra Pradesh, and an additional ₹6000 from state funds in Kerala—these arrangements vary across states. At the same time, ASHAs face constraints in exercising their role as 'activists', with instances of being warned or threatened when raising concerns within the system. Not surprisingly, this cadre faces significant economic, mental and physical stress (Raman 2025; Kalia 2025; Gurjar and Raman 2023; Shrivastava et al. 2023), and has repeatedly mobilised in protest, demanding regularisation as employees of the public health system (Saha 2025; Padanna 2025; The Hindu Bureau 2025; Karmakar 2023).

9.3.5 Status of healthcare facilities

The tiered system of healthcare facilities discussed in earlier sections is central to ensuring access, continuity of care, and the delivery of comprehensive PHC. The current status of functional facilities, based on government data (Government of India 2024) as of 31 March 2023, indicates persistent gaps in both availability and infrastructure.

In rural areas, there is an overall shortfall of 22 per cent for SCs, 30 per cent for PHCs, and 36 per cent for CHCs. In addition, several facilities continue to operate under suboptimal conditions: 52,116 SCs (rural), 1,882 PHCs (rural), and 78 CHCs (rural) function from rented buildings. Basic infrastructure deficits remain significant, with 3.8 per cent of rural PHCs lacking electricity and 4.6 per

[9] See *Behanbox*, '20 years of ASHAs' series, for ground reports on ASHA workers.

Table 9.4: Number of government healthcare facilities

Facility	Total	Urban	Rural
Sub-centres (SCs)	169615	3976	165639
Primary health centres (PHCs)	31882	6528	25354
Community health centres (CHCs)	6359	868	5491
Sub-district hospitals	1340	NA	NA
District hospitals	714	NA	NA
Medical colleges	362	NA	NA

Sources and notes: Health Dynamics of India (Infrastructure and Human Resources) 2022–23, New Delhi: Statistics Division, Ministry of Health and Family Welfare.

cent lacking regular water supply, despite expectations of round-the-clock functioning. Further, 7.5 per cent of facilities lack an approach road, and 72.6 per cent do not have access to computers. Urban infrastructure presents a comparable set of challenges. The report notes a shortfall of 36.7 per cent in urban PHCs, with 2,093 facilities operating from rented premises. At the same time, the data also indicate an overall increase in the number of facilities between 2005 and 2023, reflecting expansion in physical infrastructure. However, this increase coexists with persistent shortfalls and infrastructural deficiencies, suggesting that expansion has not fully translated into functional adequacy.

9.3.6 Health and wellness centres and AAMs

The introduction of AAMs under the Aysuhman Bharat Yojana, represents an effort to operationalise comprehensive primary health care through the upgrading of sub-centres and select primary health centres, alongside an expansion of service packages. This includes the addition of diagnostic services and free medicines at both sub-centre and PHC levels, as well as the incorporation of a broader range of care areas extending beyond reproductive and child health to communicable and non-communicable diseases, and, in principle, to dental, ophthalmic, mental and geriatric services.

The scale of implementation has been substantial, with 1,78,868 AAMs as operational as of 18 August 2025 out of 2,01,497 sub-centres and PHCs. However, aggregate expansion provides limited insight into the extent to which these centres are able to deliver the full range of envisaged services. Existing studies point to the potential of well-functioning HWCs to provide comprehensive care (Tripathi et al. 2024). At the same time, this potential remains unfulfilled by limited progress across

several domains critical to their functioning (Tiwari et al. 2025; Prasad, Kumar, and Bharati 2024; Government of India 2022).

9.4 Conclusion

As with other sectors shaping the social determinants of health, including employment (EMCONET 2007), and areas such as education, water, sanitation and nutrition (CSDH 2008), the organisation of health systems reflects competing paradigms: healthcare as a right to be ensured by the state, versus health as a commodity produced by a profit-making industry. Even within the role of the state, a further distinction persists between welfare-oriented provision, often viewed as residual or temporary (Khera 2025), and a rights-based approach with enforceable state accountability. The Indian health care system has long remained positioned between these approaches, marked by a constant push towards privatisation alongside a continuing political imperative to provide services to populations unable to afford private care. This has resulted in a dual trajectory, with some improvements in public provision coexisting with substantial subsidies and incentives to the private sector. As discussed in Chapter 10 on insurance schemes, the expansion of social insurance mechanisms has further enabled the transfer of public resources to private providers, with patients bearing costs both as taxpayers and through out-of-pocket expenditures.

This trajectory raises several concerns, including escalating costs of care, fragmentation and lack of continuity, overmedicalisation, and the prevalence of irrational or unethical practices in a context of limited regulation. Within this debate, questions also arise regarding the role of user charges in the public system, which evidence suggests create barriers to access, particularly for the most vulnerable (Robert and Ridde 2013; Piatti-Fünfkirchen, Hashim, and Yoo 2020). A relatively underemphasised dimension within these debates is decentralisation and the role of local governance in shaping health systems. Experiences such as Kerala's use of the PRIs, supported by capacity-building efforts through agencies like Kerala Institute of Local Administration (KILA) (Rajesh and Thomas 2013; Niti Ayog 2023), point to alternative institutional arrangements that enable greater local accountability and community participation.

Another critical area concerns the status of the health workforce, including frontline workers. Across cadres, there has been a sustained tendency towards contractualisation and informalisation, despite the system's reliance on a stable and skilled workforce. This suggests a systematic effort to limit obligations related to social security and labour rights, with implications for both workforce conditions and quality of care, and contributing to persistent staffing gaps. The chapter also highlights the lack of critical data to comprehensively assess these processes, including the outcomes of three decades of health sector reforms (HSRs)

in terms of efficiency, equity, universal coverage, sustainability, and desired health outcomes. The COVID-19 pandemic exposed these gaps: public sector limitations reflected long-standing resource constraints (Nimavat et al. 2022), while failures in the private sector took the form of service denial, overcharging, price gouging and profiteering, inadequate protection to healthcare workers, and lack of transparency (Marathe et al. 2023; George et al. 2023; Wiliams, Yung, and Grépin 2021; Thiagarajan 2020).

In summary, the organisation of healthcare delivery ultimately depends on the extent of public investment in a predominantly public, not-for-profit system. Such investments would need to be accompanied by governance reforms, including decentralisation, regulation of the private sector, protection of patients' rights, grievance redressal mechanisms, and strengthened community participation, to achieve universal coverage with quality.

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