



# HEALTH STATUS IN INDIA

## CHALLENGES AND OPPORTUNITIES

SANDHYA VENKATESWARAN

---

Copyright © Sandhya Venkateswaran

Centre for Social and Economic Progress (CSEP)  
CSEP Research Foundation  
6, Dr Jose P. Rizal Marg, Chanakyapuri,  
New Delhi - 110021, India

Recommended citation:

Venkateswaran S., (2022). *Health Status in India: Challenges and Opportunities* (CSEP Working Paper 25).  
New Delhi: Centre for Social and Economic Progress.

The Centre for Social and Economic Progress (CSEP) conducts in-depth, policy-relevant research and provides evidence-based recommendations to the challenges facing India and the world. It draws on the expertise of its researchers, extensive interactions with policymakers as well as convening power to enhance the impact of research. CSEP is based in New Delhi and registered as a company limited by shares and not for profit, under Section 8 of the Companies Act, 1956.

All content reflects the individual views of the authors. The Centre for Social and Economic Progress (CSEP) does not hold an institutional view on any subject.

CSEP working papers are circulated for discussion and comment purposes. The views expressed herein are those of the author(s). All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including copyright notice, is given to the source.

Designed by Mukesh Rawat

# HEALTH STATUS IN INDIA

## CHALLENGES AND OPPORTUNITIES

Sandhya Venkateswaran\*  
Senior Fellow  
Centre for Social and Economic Progress  
New Delhi, India

\*Sandhya Venkateswaran is a Senior Fellow at the Centre for Social and Economic Progress (CSEP) and Commissioner, Lancet Citizen's Commission on Reimagining India's Health System. Data support for this paper was provided by Alok Kumar Singh, Research Associate, CSEP.

## Table of Contents

Abstract .....	5
Context .....	6
Architecture of the Health System .....	12
Challenges and Opportunities in the Health System .....	15
Public Health .....	16
Primary Healthcare .....	17
Financing Health .....	18
Provision .....	26
Governance, State Capacity and Accountability .....	28
Health and the Federal Structure .....	30
Political Economy .....	32
Conclusion .....	35
References .....	36
Appendix .....	38

## List of Figures and Tables

Figure 1: Infant Mortality Rate (per 1000 live births) Comparison based on World Bank Classification of Countries by Income Level .....	8
Figure 2: Prevalence of Anaemia among Women across Countries by Income Level (%) .....	9
Figure 3: Proportion of Communicable and Non-communicable Disease in India, 1990-2019 .....	11
Figure 4: Health Expenditure of States as % of Total Expenditure (2018–19) .....	12
Figure 5: Public Health Organizational Chart .....	15
Figure 6: Public Health Spending as % of GDP, 2000-2018 .....	19
Figure 7: Public Health Expenditure with GDP Growth, 2000–2018 .....	19
Figure 8: Out-of-pocket Expenditure — Major Heads .....	20
Figure 9: Public health spending per capita as per state GDP .....	21
Figure 10: Public Health Spending as Percentage of GSDP .....	21
Figure 11: Per capita Government Health Expenditure in Rs. ....	22
Figure 12: Per capita Total Government Health Expenditure (real) growth rate .....	22
Figure 13: Government Doctors per lakh Population (2019) .....	24
Figure 14: Utilisation of NHM Funds across States .....	24
Figure 15: Low, Very Fragmented Risk Pooling, Household Out-of-pocket Funding at 64% of Total Expenses – Dominate System Financing .....	26
Figure 16: Vertical Fragmentation within the Delivery System .....	27
Figure 17: Comparing Prevalence of Anemia among Children based on World Bank Classification of Countries by Income Level .....	38
Figure 18: Comparing Maternal Mortality Ratio (per 100000 live births) based on World Bank Classification of Countries by Income Level .....	38
Figure 19: Comparing Mortality due to Non communicable Disease (between ages 30 and 70) based on World Bank Classification of Countries by Income Level (%) .....	39
Figure 20: Comparing Universal Health Coverage Index (0-100) based on World Bank Classification of Countries by Income Level .....	39
Figure 21: Non communicable disease among the top 10 reasons of deaths .....	40
Table 1: Trends in Key Health Status Indicator – India .....	7
Table 2: Comparison of India with Other Countries in Key Health Outcomes, 2019 .....	8
Table 3: Health Outcomes at Sub-national Level .....	10
Table 4: Urban Rural differentials in Key Sustainable Development Goals Indicators .....	41
Table 5: Contributory Risk Pooling Scheme at National and State Level .....	42
Table 6: Government Funded Health Programmes .....	45
Table 7: List of Research, Training, and Regulatory Institutions .....	47

## Abstract

India has experienced considerable progress in health, in outcomes as also infrastructure. An ambitious health policy was developed in 2017. Between the Central and State governments, several programmes have been launched, including the National Health Mission (NHM; an amalgamation of the rural and urban health missions), Ayushman Bharat (including an insurance scheme covering 40% of India's population and the strengthening of primary healthcare through Health and Wellness Centres [HWCs]), Pradhan Mantri Swasthya Suraksha Yojana (PMSSY), Universal Immunisation Programme, National Tuberculosis Elimination Programme, National Vector Borne Disease Control Programme, and numerous state-level insurance and other schemes (such as the free medicine scheme in Rajasthan), to name a few. The interventions have been numerous—targeted at family health, communicable and non-communicable diseases—and have contributed to progress on various fronts. However, the task of addressing the health of India's citizens remains an unfinished task.

This paper outlines some of the key challenges currently experienced in improving health outcomes in India, and opportunities to address them. This acknowledges the progress that has been made, but identifies what needs further attention. The paper takes a holistic view of health delivery in all its aspects; those in the purview of institutions dedicated to addressing health as well as aspects that go beyond the health sector, to broader structural issues that impact the effectiveness of health delivery. The paper is based on secondary analysis, and is a summary consolidation of various diagnostics and analytical work undertaken, and does not include any recommendations. This will serve as the base on which deeper insights—in terms of further questions, additional diagnostics, and suggested pathways—will be developed.

The paper is divided into three broad sections. The first outlines the health status in terms of India's health outcomes, with a disaggregation across states, geography and identity, and comparison with other countries. The second outlines the architecture of the system that finances and delivers health. The third summarises the key challenges in the health system, across both public and private. It covers promotive, preventive and curative aspects, and begins with a discussion on public health (focused on health promotive and disease prevention) and primary healthcare (which includes elements of both public health and curative health). This is followed by a focus on curative healthcare in terms of the challenges in financing and provisioning. Beyond the specifics of health financing and provision, there are three additional overarching aspects that have a bearing on the financing and delivery of health services and consequently health outcomes. Of these, we discuss the governance of health, especially in terms of the capacity and accountability within the system and with respect to India's federal structure. The last element focuses on the political economy of health which drives the priority to the health sector, the expenditure and the extent and nature of reforms.

## Context

India has made considerable progress on several health fronts such as eradication of polio, smallpox, guinea worm; increase in life expectancy; reduction in total fertility rate; reduction in infant and maternal mortality; improvement in immunisation coverage; reduction in malarial death rates and others. The government has developed progressive health policies over the years, aimed at addressing health-related inequities across states, invested in several new All India Institutes of Medical Sciences (AIIMS), focused on improving social determinants of health through extensive sanitation and a clean cooking-fuel programme. The list of initiatives is long, yet the task is far from complete and much distance remains to be covered on several health outcomes. India is still far behind achieving the Sustainable Development Goals (SDGs) in most health- and nutrition-related indicators (see Table 1), despite the considerable progress over the decades (World Bank, 2019). The incidence of anaemia among women and children has remained persistently high over the years, despite several State and Centrally sponsored schemes such as Integrated Child Development Scheme (ICDS), POSHAN Abhiyaan, National Food Security Act (NFSA), Janani Suraksha Yojana (JSY) etc. Additionally, the growing mortality due to non-communicable disease (NCD) in the last decade has been a cause of concern, indicating a double burden of disease.

The significant gap with the SDG targets indicates, amongst other aspects, that India's healthcare system is not at par with the low- and middle-income countries. The *15<sup>th</sup> Finance Commission Report* (2020) suggests that India has under performed in terms of controlling maternal and child mortality, fertility rate, and child stunting (see Table 2). Neighbouring countries like Sri Lanka, Thailand, China, and Bangladesh are performing better on these aspects, even though some of these countries have lower gross domestic product (GDP) per head in comparison to India. Using the World Bank classification of countries by income level, data reveals that India lags behind a large number of countries on health outcomes, in some cases below low-income countries. (See Figures 1 and 2, and other data in Figures 1–4 in Appendix, which include comparison across MMR, mortality due to NCD, and universal health coverage (UHC)).

**Table 1: Trends in Key Health Status Indicator – India**

Parameters	1990	1995	2000	2005	2010	2015	2019 <sup>1</sup>	SDG Target (2030)
Life expectancy at birth (in yrs.)	57.865	60.32	62.505	64.5	66.693	68.607	69.7	-
Neonatal mortality rate (per 1,000 live births) <sup>@</sup>	57.4	51.5	45	38.1	32	25.9	24.9	12
Infant mortality rate (per 1,000 live births) <sup>@</sup>	88.6	78	66.7	55.7	45.1	34.9	35.2	-
Under-five mortality rate (per 1,000 live births) <sup>@</sup>	126.2	109.5	91.8	74.5	58.2	43.5	41.9	25
Maternal mortality ratio (per 1,00,000 live births) <sup>2</sup>	-	-	370	286	210	158	-	70
Prevalence of anaemia among non-pregnant women (% of women ages 15–49) <sup>@</sup>	-	-	54.1	54.2	53.6	52.8	57.2	-
Prevalence of anaemia among pregnant women (%) <sup>@</sup>	-	-	53.7	53	51.9	50.6	52.2	25.2
Prevalence of anaemia among women of reproductive age (% of women ages 15–49) <sup>@</sup>	-	-	54.1	54.2	53.5	52.7	57	-
Prevalence of anaemia among children (% of children ages 6–59 months) <sup>@</sup>	-	-	69.5	64.4	59.7	55.7	67.1	-
Prevalence of stunting, height for age (% of children under-five) <sup>@</sup>	61.5 (1991)**	45.9 (1997)	54.2 (1999)	47.8 (2006)	-	37.9	35.5	6
Tuberculosis death rate (per 1,00,000 people)	-	-	58	49	40	34	32	-
Mortality due to non-communicable disease (% of total deaths) <sup>*</sup>	35.87	39.63	43.91	47.69	53.46	60.53	64.93	21.64

Source: Health Nutrition and Population Statistics, World Bank, 2021

\*<https://vizhub.healthdata.org/gbd-compare/> (Global Burden of Disease, 2019)

\*\*The values in the parentheses represent year

@Values for these variables for the year 2019 is taken from NFHS Five data source

<sup>1</sup> In order to get the most recent data for health and nutrition, the values have been taken from the National Family Health Survey (NFHS) Five data set. The data seems consistent for all variables except the infant mortality rate (IMR) where it appears that it has increased in last five years. However, as per the NFHS there has been a decrease in the last five years from 40.7 (2015) to 35.2 (2019).

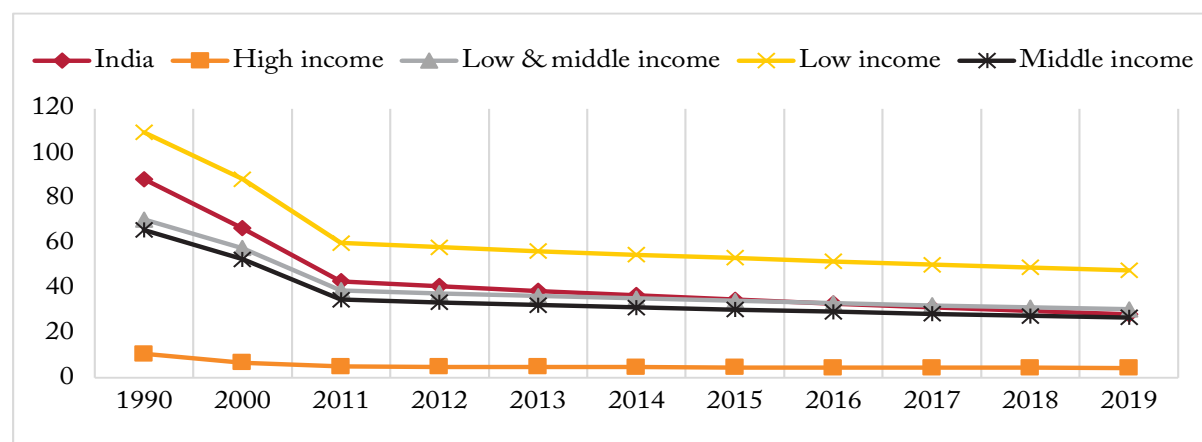
<sup>2</sup> Maternal mortality ratio (MMR) is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination, per 1,00,000 live births. The data are estimated with a regression model using information on the proportion of maternal deaths among non-AIDS deaths in women ages 15–49, fertility, birth attendants, and GDP measured using purchasing power parities (PPPs).

**Table 2: Comparison of India with Other Countries in Key Health Outcomes, 2019**

Country	Population (millions)	Fertility	Life Expectancy (years)	Under-five Mortality	Maternal Mortality	Child Stunting (%)
Bangladesh	167	2.1	72	30	173	36
Brazil	210	1.7	75	14	60	7
China	1,400	1.7	76	9	29	8
India	1,352	2.2	69	37	130	38
Indonesia	267	2.3	71	25	177	36
Malaysia	33	2	76	8	29	21
Russia	147	1.8	72	7	17	5
South Africa	59	2.4	64	34	119	27
Sri Lanka	22	2.2	77	7	36	17
Thailand	68	1.5	77	9	37	11
Vietnam	95	2	75	21	43	25

Source: 15<sup>th</sup> Finance Commission Report Volume I, 2020

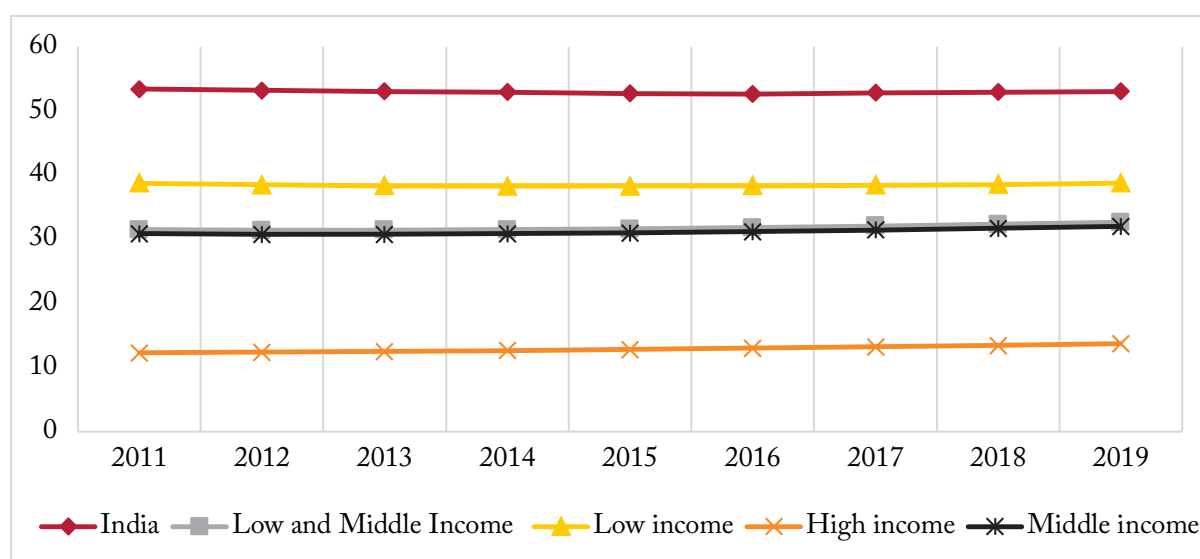
**Figure 1: Infant Mortality Rate (per 1000 live births) Comparison based on World Bank Classification of Countries by Income Level<sup>3</sup>**



Source: Health Nutrition and Population Statistics, World Bank, 2021

<sup>3</sup> According to Health Nutrition and Population Statistics, IMR is the number of infants dying before reaching one year of age, per 1,000 live births in a given year.



**Figure 2: Prevalence of Anaemia among Women across Countries by Income Level<sup>4</sup> (%)**

Source: Health Nutrition and Population Statistics, World Bank, 2021

While national averages on certain indicators convey significant progress, they belie the sub-national variance where some states are well behind desired outcomes (see Table 3). Similarly, variance across urban and rural areas (see Table 4 in Appendix), and across gender and caste, highlight continuing inequities:

- An estimated one-third of India's population resided in urban areas in 2018, and is expected to grow to 877 million by 2050 (World Bank, 2019; UN Population Division, 2018). The urban poor often lag behind their rural counterparts on health indicators: anaemia is prevalent amongst 62.7% of urban children as opposed to 59.5% of rural poor children; full immunisation amongst children aged 12–23 months is 57.7% for the urban poor as compared to 61.3% for the rural population.
- Women's access to primary healthcare is inadequate due to multiple reasons, including a lack of empowerment and financial barriers: 63% of married women cannot take decisions related to their own health, and only 57% of women in urban areas can freely visit a health facility alone (IIPS, 2021). Further, limited availability of female doctors (17% of doctors) hinders women from seeking care (Rao, Bhatnagar, & Berman, 2012).

<sup>4</sup> According to Health Nutrition and Population Statistics, prevalence of anaemia among women of reproductive age refers to the combined prevalence of both non-pregnant women with haemoglobin levels below 12 g/dL, and pregnant women with haemoglobin levels below 11 g/dL.

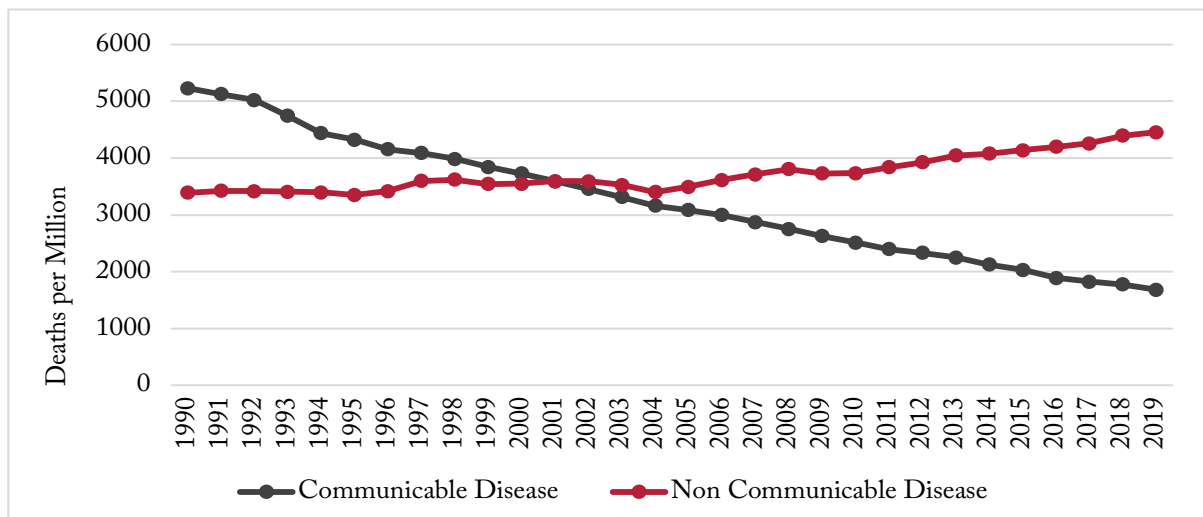
Table 3: Health Outcomes at Sub-national Level

Sustainable Development Goals: Indicators													
State	Mortality Rate			Nutritional Outcome				Non-communicable Disease Outcome				Universal Health Coverage	
	Neonatal Mortality Rate (NMR)	Infant mortality rate (IMR)	Under-five mortality rate	Children under five who are severely wasted (SAM) (%)	Children: age 6–59 months who are anaemic (<11 g/dl) (%)	Pregnant women: age 15–49 years who are anaemic (<11 g/dl) (%)	Men: age 15–49 years who are anaemic (<13 g/dl) (%)	Women: Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level (%)	Men: Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level (%)	Women: Elevated blood pressure (Systolic ≥140 mm of Hg and/ or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	Men: Elevated blood pressure (Systolic ≥140 mm of Hg and/ or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	Pregnant women who had at least four ANC visits (%)	Children age 12–23 months fully vaccinated (%)
Andhra Pradesh	19.9	30.3	35.2	6	63.2	53.7	16.2	19.5	21.8	25.3	29	67.5	73
Telangana	16.8	26.4	29.4	8.5	70	53.2	15.3	14.7	18.1	26.1	31.4	70.4	79.1
Assam	22.5	31.9	39.1	9.1	68.4	54.2	36	12.8	16	19.1	20.3	50.7	66.4
Bihar	34.5	46.8	56.4	8.8	69.4	63.1	29.5	12.7	16.2	15.9	18.4	25.2	71
Goa	5.6	5.6	10.6	7.5	53.2	41	12	20.8	24.1	27.5	26.8	93	81.9
Gujarat	21.8	31.2	37.6	10.6	79.7	62.6	26.6	15.8	16.9	20.6	20.3	76.9	76.3
Himachal Pradesh	20.5	25.6	28.9	6.9	55.4	42.2	18.6	13.9	14.7	22.2	24.4	70.3	89.3
Jammu & Kashmir	9.8	16.3	18.5	9.7	72.7	44.1	36.7	8.7	8	20	18.9	80.9	86.2
Karnataka	15.8	25.4	29.5	8.4	65.5	45.7	19.6	14	15.6	25	26.9	70.9	84.1
Kerala	3.4	4.4	5.2	5.8	39.4	31.4	17.8	24.8	27	30.9	32.8	78.6	77.8
Maharashtra	16.5	23.2	28	10.9	68.9	45.7	21.9	12.4	13.6	23.1	24.4	70.3	73.5
Manipur	17.2	25	30	3.4	42.8	32.4	6	13.6	16.5	23	33.2	79.4	68.8
Meghalaya	19.8	32.3	40	4.7	45.1	45	25.5	9.5	13.9	18.7	21.4	52.2	63.8
Mizoram	11.4	21.3	24	4.9	46.4	34	15.6	13.8	15.4	17.7	25.2	58	72.5
Nagaland	10.2	23.4	33	7.9	42.7	22.2	10	9.3	12.4	22.4	28.7	20.7	57.9
Sikkim	5	11.2	11.2	6.6	56.4	40.7	18.7	12.2	15.7	34.5	41.6	58.4	80.6
Tripura	22.9	37.6	43.3	7.3	64.3	61.5	36.9	17.7	19.3	20.9	22.7	52.7	69.5
West Bengal	15.5	22	25.4	7.1	69	62.3	38.9	17.5	21.3	20.5	20.1	75.8	87.8

Source: National Family Health Survey-5, 2019–20

Existing evidence suggests that India has been going through an epidemiological transition (see Figure 3), with an increase in the proportion of disease burden and mortality attributable to NCDs. Along with family health, managing the communicable disease burden remains an unfinished task,<sup>5</sup> and the increasing burden of NCDs has further expanded the remit of what needs attention. Non-communicable diseases are now the leading cause of death in the country, contributing to 65% of total deaths. Demographic transitions and changing lifestyles have contributed to a rise in NCDs (cardiovascular diseases, respiratory diseases, and diabetes in the main), resulting in about four million deaths annually (Arokiasamy, 2018).

**Figure 3: Proportion of Communicable and Non-communicable Disease in India, 1990-2019**



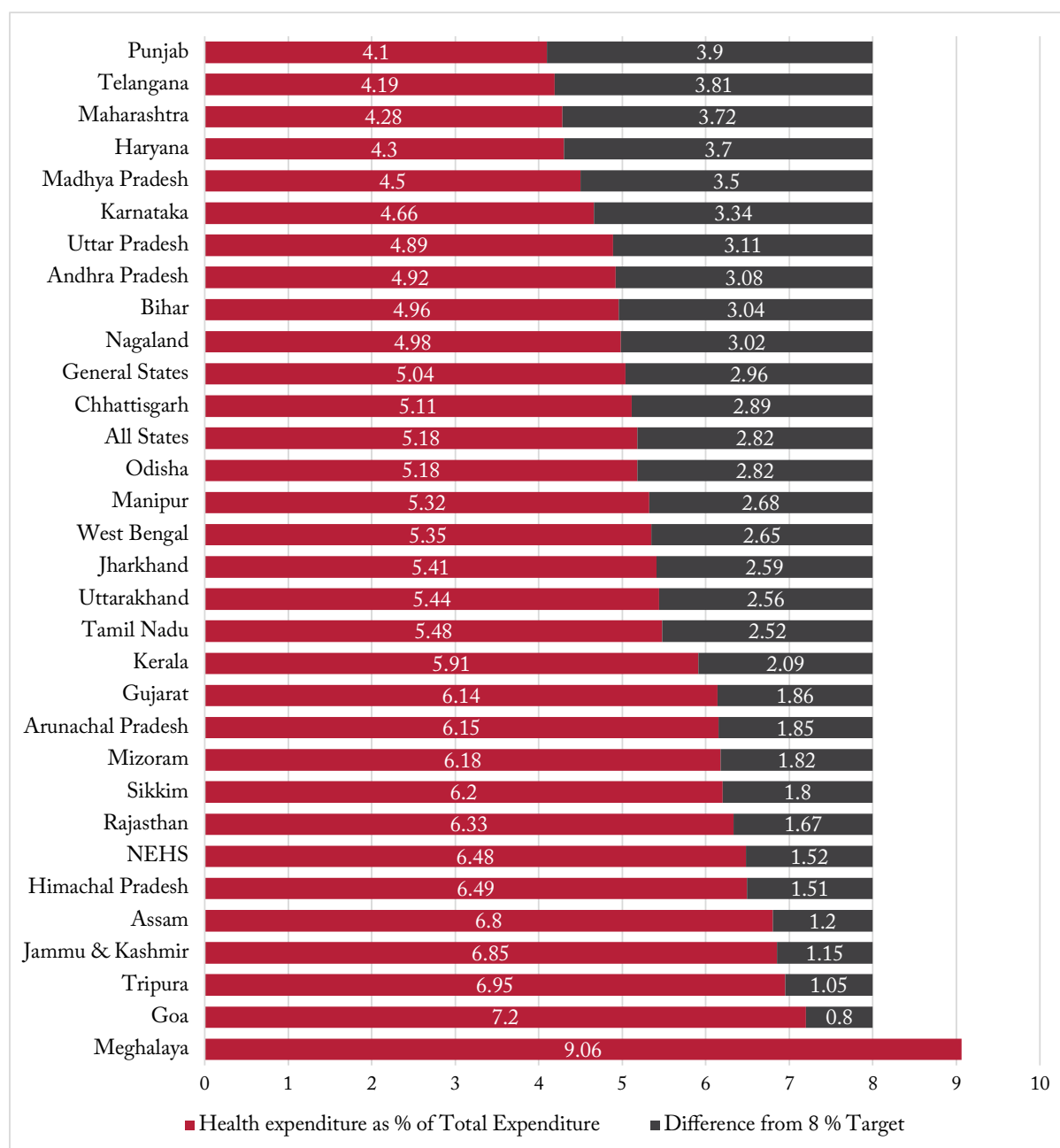
Source: *Global Burden of Disease 2019*

India's health system remains inadequate in terms of availability and distribution of infrastructure and the health workforce. India has approximately 1.4 beds per 1,000 populations, lower than several comparable countries (Finance Commission, 2020) such as China (at 4 per 1,000), the United Kingdom (UK) and Sri Lanka (at 3 per 1,000) and Thailand and Brazil (at 2 per 1,000) (Finance Commission, 2020). The distribution of these beds is skewed, across states and across public and private, with 60% in the private sector. States such as Karnataka have almost 4 beds per 1,000 people while Bihar, Orissa, Jharkhand, Chhattisgarh and several others have less than 1 bed. The gaps in the health workforce are similarly large with the doctor to population ratio at 1:1,511 as against the World Health Organisation (WHO) norm of 1:1,000, with considerable distribution skews across urban and rural areas.

Health outcomes are not the only matter of concern. Financial risk related to health expenditures is another aspect needing attention. Indian citizens incur large and often catastrophic out-of-pocket expenditure for health-related expenses (estimated at 62% of total health expenditure), increasing their economic vulnerability. It is estimated that such expenses push about 60 million people into poverty each year (Finance Commission, 2020). While total health expenditure on health in India is around 3.5% of GDP, public expenditure has remained low at about 1.3% of GDP, despite recommendations of the High Level Expert Group on Universal Health Coverage (HLEG) and the National Health Policy (NHP) 2017, to increase public health allocations to 2.5% of GDP. Though the NHP had stated that States should spend 8% of their budget on health by 2020, it is currently (December 2021) at 5.18% on an average, with large variations across states ranging from 4.10 to 9.06% (see Figure 4).

<sup>5</sup> The burden from major communicable diseases such as diarrhoea, lower respiratory infections, and tuberculosis, as well as neonatal disorders, continues to be quite high (25%) in India relative to other countries (*Lancet Report 2016*).

**Figure 4: Health Expenditure of States as % of Total Expenditure (2018–19)**



Source: 15<sup>th</sup> Finance Commission Report Volume I,

Note: NEHS is North Eastern and Himalayan States.

## Architecture of the Health System

India has a mixed health system, comprising public and private delivery. The private system is an amalgamation of a large number of diverse providers, with extensive variation in size and scope of services, and the public system is a combination of services addressing public health, primary care and curative care, with responsibility and accountability split across different administrative and governance levels. The resultant ecosystem of health promotion, disease prevention and treatment is a fragmented one—across state and markets, health context, size and scope.

India's mixed health delivery system is extremely heterogenous. It has grown with India's expanding economy and liberalised health market. However, the growth of this health delivery system has

been inconsistent across the private and public spheres, and very varied qualities of care co-exist simultaneously. There are a wide range of formal and informal providers, from individuals to super-specialty hospitals (competing with the best in the world), alongside tiered, but not integrated, public-delivery systems.

The private system for healthcare accounts for 80% of ambulatory care, and 60% inpatient care. Facilities and the health workforce are both heavily skewed in favour of the private sector, with more than 80% of doctors in the private sector. Despite the extensive presence and use of private services, collaboration between the public and private systems remains limited, though some headway has been attempted through various purchasing mechanisms such as the Pradhan Mantri Jan Arogya Yojana (PMJAY), and other State-level schemes. The private facilities constitute a large and varied ecosystem, with solo practitioners, clinics/poly clinics, nursing homes, large standalone hospitals, and corporate chains. Although varied, the market consists predominantly of small facilities, where an estimated 64% of the one-million plus private health enterprises consist of solo providers. The private provider landscape is distributed not only across size, but also across types of practice such as allopathic and AYUSH, with half of all private providers being unqualified/informal.

India's publicly delivered health system aims to address its population and public health needs, as also its curative needs. As mentioned, the shifting disease burden underlines the increasing double burden of disease in the country and on the health system—the unfinished agenda of communicable diseases and a growing NCD load. Much of the focus of India's health systems till now has been on communicable diseases and on maternal, neonatal and child health. India's attention to public health has been disproportionately lower than its attention to curative care (an aspect well highlighted through the pandemic response), with much of the health delivery being a treatment response to health problems. Separate institutions or human resource cadres for public health are few; although some states such as Tamil Nadu do have a focused public health system with a public health cadre.

The public delivery system functions at three levels—primary, secondary and tertiary—with little integration or coordination across the three. Primary care, historically addressed through government facilities at various levels (Sub Centres [SCs], Primary Health Centres [PHCs], and Community Health Centres [CHCs]), has largely focused on addressing a limited set of health issues such as maternal and child care, a set of preventive interventions and some communicable diseases. There is stronger attention now through the HWCs programme, aimed at comprehensive primary care in the form of preventive, promotive and curative care, addressing specially the growing NCD burden.<sup>6</sup> At the tertiary level, PMJAY, an ambitious initiative in its scale, seeks to address hospitalisation cover for 40% of India's population.

Both, the HWCs and PMJAY are ambitious in design, yet their lack of integration results in a disproportionate burden on India's hospitalisation; a situation that could well lead to an extreme financial burden on PMJAY as utilisation increases. Publicly delivered healthcare is provided through numerous vertical programmes covering communicable diseases and NCDs, where each programme has its own administrative structure of budget, technical and managerial staff and data systems.

The role of the government in health includes both financing and delivery. Financing for health is spread across the fragmented private and public system, with total health expenditure estimated at about 4% of GDP. At 1.4% of GDP, the public spend (including both the Centre and the States) is a small proportion of the total health expenditure, leading to a high burden of out-of-pocket expenditure of 62% at point of service. India's health system is designed with an input focus: line item budgets and infrastructure. The lack of focus on outcomes has resulted in a system with low accountability.

---

<sup>6</sup> Government of India launched the Ayushman Bharat programme in 2018, to achieve the vision of universal health coverage, with two pillars 1) a social health insurance programme (PMJAY) for the poor; and 2) the development of 150,000 HWCs to deliver comprehensive primary-care.

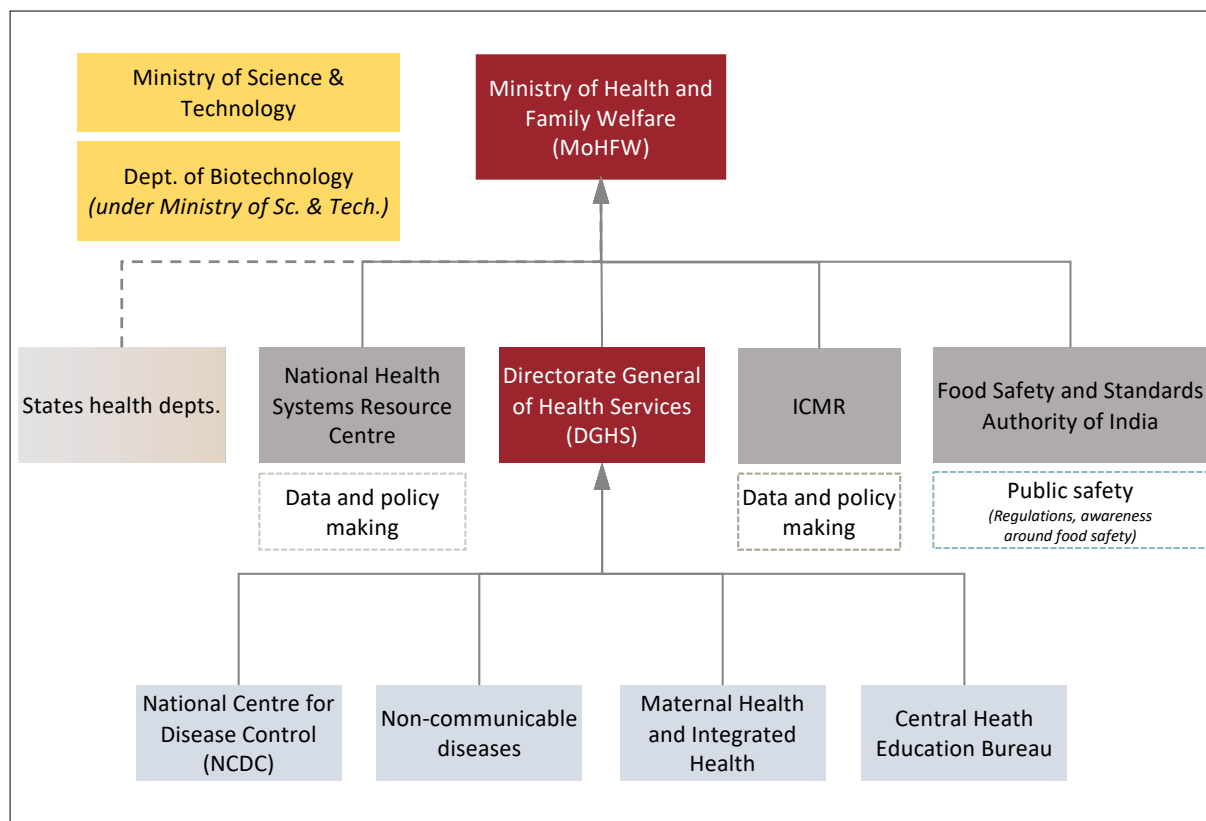
Health is a State subject, and about 70% of public expenditure on health is incurred by States, with 30% spent by the Centre. Resources are provided to States by the Central government for programmes (Centrally Sponsored Schemes) designed and monitored by the Centre. In the case of health, the NHM is the main vehicle through which funds are transferred to States, aimed at addressing interstate inequalities in infrastructure, human resources, and maternal and child health services. These schemes are delivered across states through a single design, irrespective of the state context and needs on health. The Centre and States share resources for implementation in the ratio of 60:40. While in theory, resources from the Centre were meant to be additive to State resources, in practice they often replace the latter. States receive untied resources through Finance Commission transfers, and can theoretically utilise these for health and other social policy areas.

Healthcare spending in India is predominantly curative, with inpatient curative care and outpatient curative care accounting for 35.3% and 17.1% of total health expenditure respectively, whereas, spending on preventive care is a mere 6.8% (RBI, 2020). Government funds targeted to primary care account for 52.1% of total health expenditure, whereas they account for 23.1% and 10.8% respectively for secondary and tertiary care. (Central Bureau of Health Intelligence, 2020)

India has several contributory risk-pooling schemes (see Table 5, Appendix) at the state and national level, as outlined by Cristian Baeza (NITI Aayog, 2019) with varying benefits packages, eligibility criteria, and funding arrangements, including:

- National-level contributory quasi-public single insurers (Employees' State Insurance Corporation [ESIS], Central Government Health Scheme [CGHS], Railway's health system, armed forces, and others)
- Several commercial health insurance schemes, all operating at national level under general insurer schemes
- National demand-side subsidised insurance scheme (PMJAY)
- A supply-side fully subsidised primary-care focused, national scheme, co-financed by the Union and States (NHM)
- Several state-level contributory and non-contributory schemes

India's health governance and administration includes a dense ecosystem of institutions. Under the overarching governance of the Ministry of Health and Family Welfare (MoHFW), the Directorate General of Health Services (DGHS) coordinates with State health directorates on various health programmes on family health, NCDs, and health education (see Figure 5). Indian Council of Medical Research (ICMR), National Centre for Disease Control (NCDC), National Health Systems and Resource Centre (NHSRC), Integrated Disease Surveillance Programme (IDSP), and National Health Authority (NHA), are amongst multiple institutions at the national level, tasked with research, data monitoring, disease prevention, policy and guidelines formulation. States implement initiatives through State Health Departments and some States include dedicated public health institutions as part of the health institutional architecture.

**Figure 5: Public Health Organizational Chart**

## Challenges and Opportunities in the Health System

The trajectory of disease, morbidity and mortality is a function of multiple factors, including:

- The design and functioning of health systems
- Financing healthcare and population health
- Governance and capacity to deliver
- Accountability and responsiveness within the system
- Gender and other identity-based relations
- Agency of citizens
- The political economy of health
- Social and environmental determinants such as quality of air, water, and sanitation

The health of the delivery system, it could be argued, is amongst the first order drivers of health in India. This includes public health (across the public health and primary care system), and curative care (across primary, secondary and tertiary care). For each of these, financing and system organisation and integration (vertically and horizontally, across public and private delivery, and across levels of care) are key elements. Some of these have received attention over the years, but the lack of a systematic, holistic analysis has implied that a systems lens to assess the needs and opportunities has been missing. This section focuses on some of these, in particular public health and primary healthcare, as also provision and financing, across all aspects of the health system. Beyond the health system, this section focuses on issues of governance and India's federal structure, in their impact on health delivery and outcomes. This is a broad consolidation of key issues, but a deeper analysis is required for each of these.



## Public Health

Broadly described as disease prevention and health promotion, public health is a public good that protects populations from health risks through social and environmental determinants of health (many of which lie outside the health sector), focuses on wellness and on equity (Narain, 2019). This implicitly implies the core functions of public health to include, “shaping research agenda and dissemination of valuable knowledge; setting norms and standards and promoting and monitoring their implementation; articulating ethical- and evidence-based policy options; and monitoring the health situation and assessing health trends.” (Narain, 2019) By preventing the outbreak of communicable diseases, public health has a direct link with economic development, as highlighted by Narain (2019).

Public health includes a wide range of diseases and issues, and therefore requires a wide skill-set to address these. It requires not only epidemiologists, but also virologists, infectious disease specialists, communications and behavioural experts. It needs laboratory capacity. Currently, India's health system is dominated by administrators and medical doctors, focused on curative aspects. The overall shortfall in the health workforce is known, what is less known is the shortfall in public health professionals. India's pre-pandemic availability of epidemiologists stood at 500–700, as against a minimum requirement of 3,200 plus, based on WHO norms. More than a quarter of India's districts had no epidemiologist and 11 states had no State-level epidemiologists. Urgent hiring of epidemiologists was undertaken by State governments during the Covid response. The absence of a disease surveillance cadre contributed to the low levels of detection in disease transmission of Covid and contact tracing.

Overall, the absence of a public health cadre has led to the medical cadre performing public health functions, leading to: increased pressure on them; shortage of expertise for medical care; and disruption in essential services during public health emergencies. While the government has prioritised aspects of health promotion and disease prevention through the health and wellness centres, these will require adequate workforce, both in numbers and skills, for them to deliver against stated objectives. Budgets requirements for public health need to be evaluated, in a context where currently 6.76% of health expenditure (in 2016–17) was spent on public health as per National Health Accounts.

India has a distributed model, with different aspects of public health governed by different institutions— prevention of communicable diseases by NCDC, prevention of non-communicable diseases by DGHC, family health by NHM, research/vital statistics/surveillance by NHSRIC, ICMR and DBT, community outreach and behavioural aspects by MoHFW and State health departments, pollution by the Ministry of Environment, Forest and Climate Change (MoEFCC), and food safety by Food Safety and Standards Authority of India (FSSAI). Multiple institutions, with (often) overlapping mandates and limited autonomy, and the absence of an overall steward for public health, have all led to a less than robust public health architecture in the country.

Surveillance data during the Covid response for example, was spread across IDSP, ICMR and states, with little integration of data sets. Overlapping research domains are spread across ICMR and the Department of Biotechnology. During the early pandemic response the absence of a steward, and overlapping responsibility, led to states being occasionally unclear on which Central agency to coordinate with, for procurement of kits with limited visibility on allocation formula. The absence of a dedicated body for regulation and quality assurance of private diagnostic labs, delayed on-boarding of private sector labs in early stages. Further, governance norms on roles, responsibility and accountability between the Centre and the States for addressing public health are often unclear.

Health research is a key component of public health. Health research has increased considerably as pointed out by Dandona et al. (2009) as they found health research output grew from 4,494 papers to 9,066, between 2002 and 2007. Their analysis reveals that even though there was a threefold



increase in public health research, this constituted a mere 5% of the total health research output. Health systems and policy saw the least increase, within public health. Disease burden continued to be under-represented, with research on reproductive and child health comprising 31.5% of research, while research on NCDs comprised 13.4% during 2005–2008 (Dandona et al. 2009).

## Primary Healthcare

The importance of primary healthcare is rooted in the premise that prevention or early detection of disease not only leads to better health outcomes, but also prevents large financial outflow when disease is discovered and treated later than earlier (requiring expensive hospital care). Mor (2020) cites how countries (UK, Thailand, France) that enforce the use of primary care, have better health outcomes than those (United States of America [the US], Germany, Japan) that do not. Not only has primary care been a critical element of the pandemic response, but equally so from the perspective of disruption in routine and essential health services, in the context of the pandemic and a weak primary care system. A UNICEF report estimated that a direct impact of the pandemic in South Asia would be a 16% spike in maternal mortality and over 200,000 deaths of children under five years due to preventable communicable diseases; all because of delayed or missed care (UNICEF, 2021). Similar challenges hold for non-communicable diseases.

Despite the criticality of primary care, systems in India have needed attention on multiple fronts—expansion of scope (now being addressed through the HWCs), inadequate infrastructure, gaps in human resources, gaps in drugs and diagnostics, inefficient use of financing, sub-optimal quality, poor accountability, and the absence of a robust system of referrals.

The historical focus of India's health system has been on family health and infectious diseases. Primary care facilities consequently, have provided a narrow set of services, catering to less than 15% of morbidities (MoHFW, 2016). With the rising NCD burden, the role of comprehensive primary care stands out for proactive, patient-centered, long-term care, underlining the need to expand the scope of primary care. The Government of India, in recognition of this, launched the Health and Wellness programme, aimed at comprehensive primary care through an expanded scope. The absence of a carefully designed referral system has implied that a large number of people access tertiary-level facilities as a first point of contact for primary care.

India's PHC network is built on the norm of one centre serving 25,000 community members. The reality in several states is vastly different, with Madhya Pradesh, Bihar and Jharkhand having one PHC serving about 45,000, 49,000 and 76,000 people respectively (Mohan, 2018). In Rajasthan, Mohan notes that people often need to travel 10–12 kilometres to access a PHC. Beyond inadequate facilities, the shortage of doctors abounds, estimated by Mohan to be a shortage of 9,000 doctors across 25,000 PHCs, with 2,000 PHCs not having a single doctor (Mohan, 2018). Lack of accountability results in widespread absenteeism, even where doctors are indeed positioned. Nurse availability is less challenging, but they remain underutilized due to strict demarcation of roles.

Primary care at the urban level needs particular attention, with the Rural Health Statistics (2018–2019) estimating (based on population norms) a 44% shortfall for primary care facilities in urban areas. The Government of India sought to address this through the National Urban Health Mission (NUHM) in 2013, which increased the number of urban PHCs. As part of the pandemic response, the Pradhan Mantri Atmanirbhar Swasth Bharat Yojana (PM-ASBY) was launched in May 2020, which seeks to establish 10,380 urban HWCs, with 20% of existing urban PHCs (UPHCs) converted into polyclinics offering specialised services.

The primary health workforce continues to be constrained in numbers, distribution and skills. The shortage of doctors and nurses remains large—the availability of allopathic doctors and nurses is 16.7 per a population of 10,000, well below the WHO norm of 44.5 for doctors, nurses and midwives

(Karan, et al., 2021). Karan et al (2021) estimate the distribution of the health workforce, which is a key challenge with two-thirds being in urban areas (even though rural areas consist of 66% of the population), much smaller numbers in the less developed states, and 65% of doctors employed in the private sector. An estimated 18% to 38 % primary healthcare facilities lack a doctor, pharmacist and laboratory assistant. Consequently, a large part of the poor population is served by informal health providers, estimated to be one million in numbers (Anant et al., 2016). With prioritisation of clinical education over population and preventive health, leading to gaps in higher levels of primary care education, career progression, and leadership positions in community and family medicine, these areas become less attractive (Anant, et al., 2016). Multiple states have innovated on strategies to address shortages, distribution and skills of their health workforce, which can be instructive for other states.

The primary care system in India does not have clearly specified care protocols, which impacts the quality of service provided. Standard Treatment workflows developed by ICMR are a step in this direction, but much more needs to be done in this regard (Mor, 2020a). Mor also points out how the culture of transactional primary care in India dilutes the very foundational aspects of a strong primary care system, i.e.: “careful and early enrolment/empanelment of a defined population, risk stratification of this population using carefully defined protocols, and a proactive outreach to the high-risk patients so that their wellness can be ensured, landscape epidemiology so that the environmental sources of a lack of wellness can be identified, and care coordination.” (Mor, 2020)

Developing a network of clinics that can support a population across these interventions is resource intensive, both financial and human. The UK’s National Health Service (NHS) spends 51% of its health budget on non-hospital based services (Mor, 2020), and as per India’s National Health Accounts (2016–2017), we spend 52.1% of total government spend on health. National Health Accounts estimate that 43% of out-of-pocket expenditure on health (62% of total health expenditure) is spent on primary care (NHSRC, 2018). Despite large out-of-pocket expenditure on primary care, the returns are limited for a variety of reasons. Mor (2020) outlines two reasons to include high price elasticity for primary care, and consumer behaviours of switching across providers. Mor cites evidence to suggest that consumers across income categories “under value and under consume” primary-care services, in part due to information asymmetry and hyperbolic preferences. Second, the fragmented landscape of primary-care providers has led to consumers visiting multiple providers, public and private, qualified and unqualified, resulting in fragmenting the resources spent on primary care. These issues have combined to reduce the returns from the considerable resources that are currently invested in primary care.

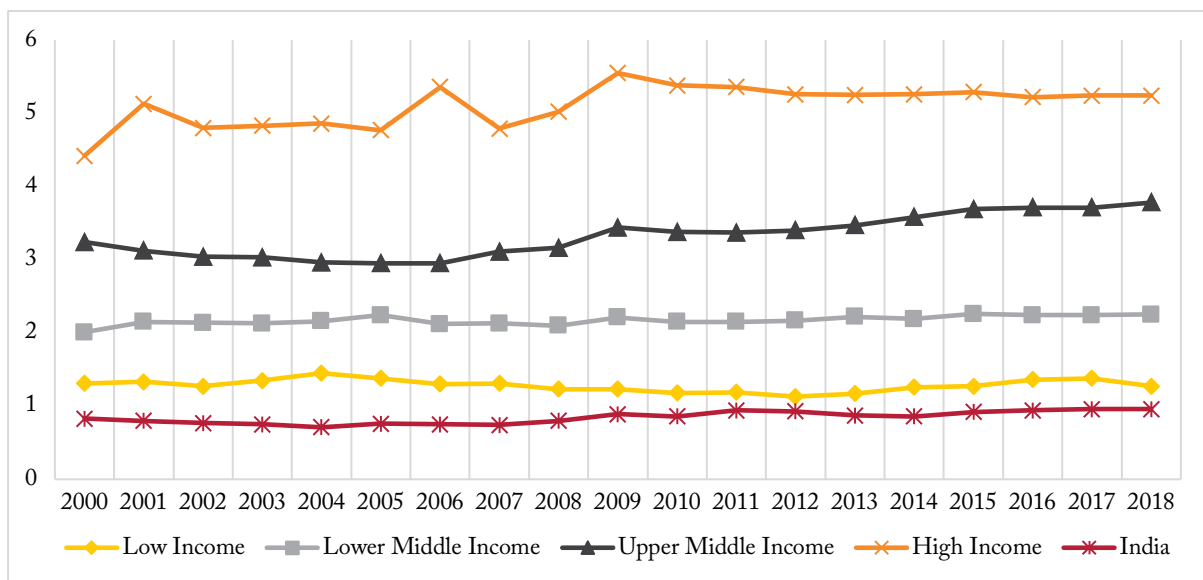
The spend on primary care is comparable to that in several other countries. Despite this, a “business model” for comprehensive primary care is absent, as identified by Mor (2020a). The challenges of infrastructure, human resources, quality and the absence of some of the critical aspects of primary care, lead to citizen dissatisfaction and switching across providers. Combined with the inability to leverage potential customer aggregators has in part prevented the development of stronger models of primary care (Mor, 2020a).

## Financing Health

India’s health financing has been both the cause of healthcare delivery challenges, and the result of it. Public expenditures on health in India are amongst the lowest across countries of different income levels (see Figure 6), leading to large gaps in availability of infrastructure, health workforce, and services, resulting in one of the highest out-of-pocket expenses on health. India has experienced several years of robust growth, but that did not translate into increased funding for health (see Figure 7). Even as GDP growth grew to over 8% in 2016, from a low of 3.8% in 2000, public expenditure on health remained stagnant around 1% of GDP.

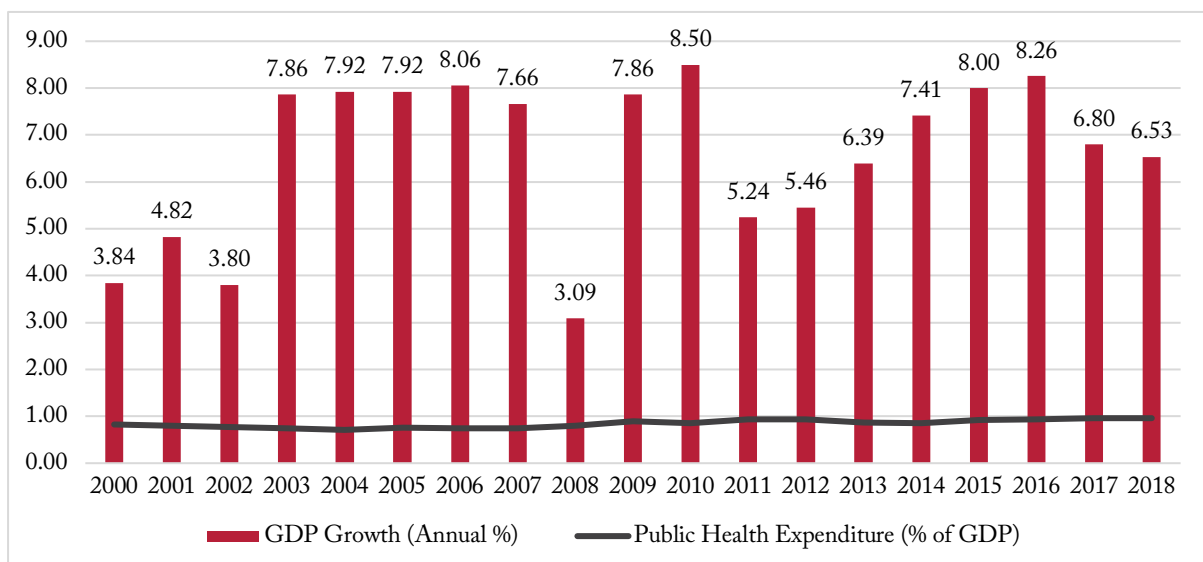
While the reasons would be several, they included several factors that did not create an environment conducive to increased investments to health—a public financial management system that did not ensure fund utilization, a complex federal structure that did not enable allocative and technical efficiencies in expenditures, and a governance system that did not seek accountability. These combined to create a context where investments in health did not translate into outcomes, in turn possibly impacting the motivation to increase public funding for health.

**Figure 6: Public Health Spending as % of GDP, 2000-2018**



Source: <https://apps.who.int/gho/data>

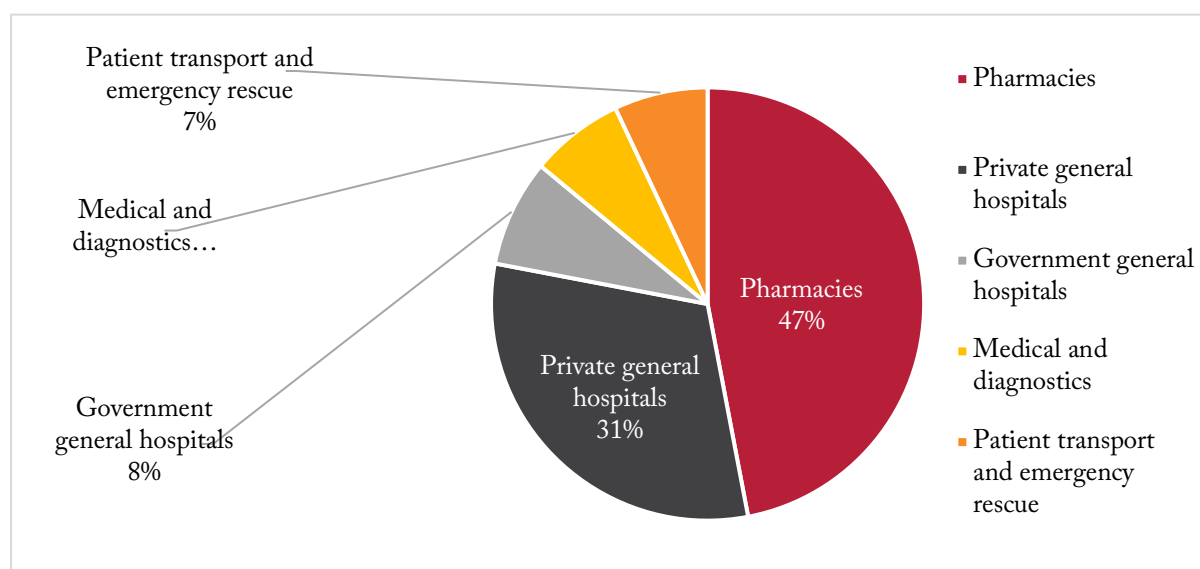
**Figure 7: Public Health Expenditure with GDP Growth, 2000-2018**



Source: <https://apps.who.int/gho/data>

The 118<sup>th</sup> report by the Parliamentary Standing Committee (2020) on health and family welfare said that India's Government Health Expenditure (GHE) as percent of the Current Health Expenditure (CHE) is only 27.1% and India ranks 134 out of 186 countries of the world in GHE as percent of CHE (as per 2017 data). Government Health Expenditure in countries like UK and France is as high as 79.4% and 77.1% respectively, and in China and Russia is 57.1% and 56.7% respectively, as percent of the current health expenditure (Parliamentary Standing Committee, 2020, p.4). Consequently, India has amongst the highest out-of-pocket expenditure on health, at 62%. The Central government funded PMJAY is an attempt to address household expenses on health, through an insurance cover for 40% of the country's population, but is not adequately resourced. A 15<sup>th</sup> Finance Commission analysis of Ayushman Bharat (2020) estimated the demand and expenditure on PMJAY for the next five years, and found that the total costs (Centre and States) of PMJAY for one year could range from Rs 28,000 crore to Rs 74,000 crore. This estimate considers: (i) the assumption that all targeted beneficiaries will be covered (approximately 50 crore people), (ii) hospitalisation rates over time, and (iii) average expenditure on hospitalisation. Further, it noted that these costs could go up to between Rs 66,000 crore and Rs 1,60,089 crore in 2023 (accounting for inflation) (PRS Legislative Research, 2020; Finance Commission, 2020). In comparison, the allocation for the year 2021–22 stands at Rs 6,400 crore. While PMJAY provides coverage for secondary and tertiary levels of healthcare, most of the out-of-pocket expenditure made by the consumers (see Figure 8) is on pharmacies (47%), private general hospitals (31%), government general hospitals (8%), medical and diagnostics (7%), and towards patient transport and emergency rescue (7%).

**Figure 8: Out-of-pocket Expenditure — Major Heads**

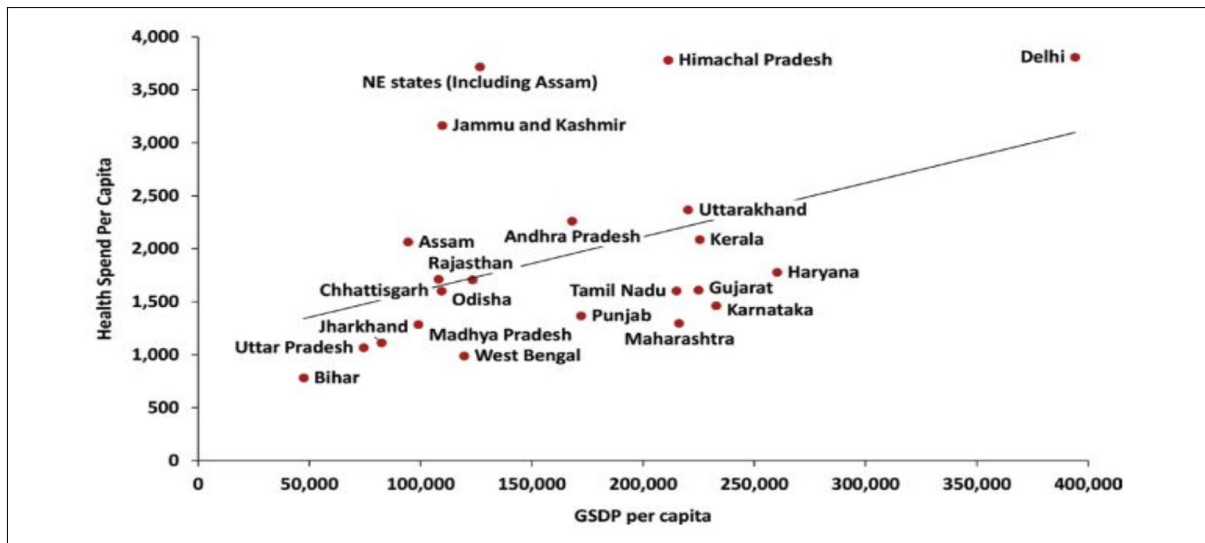


Source: PRS analysis of Demand for Grants 2021–22

The Economic Survey 2020–2021 notes:

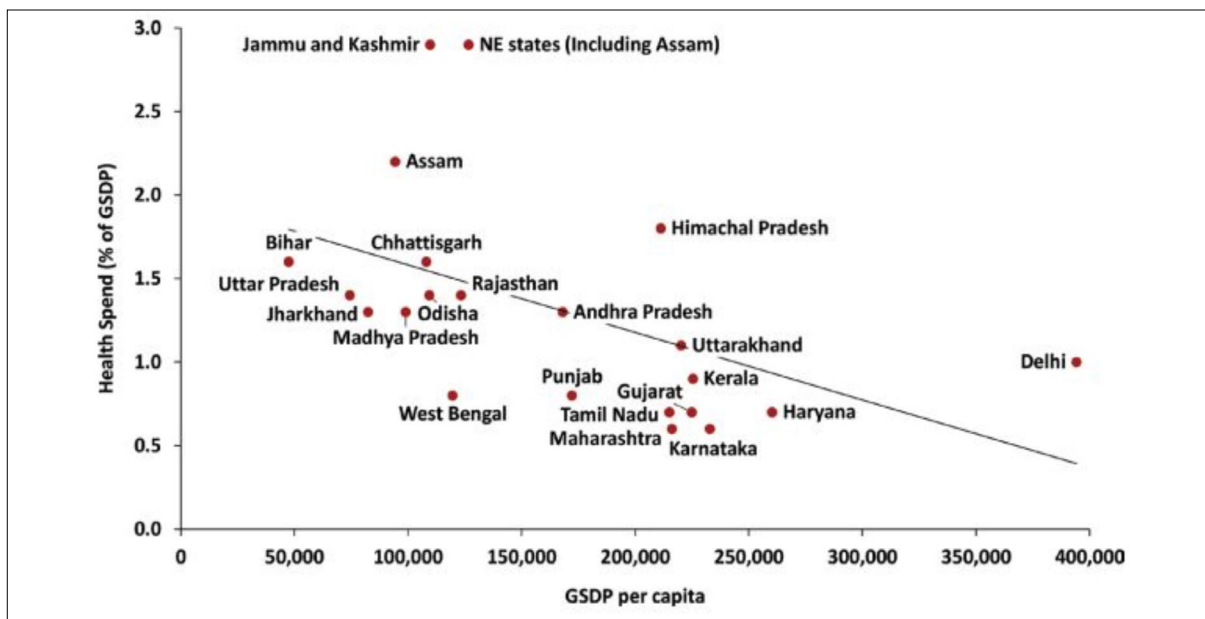
As health is a state subject in India, spending on healthcare by states matters the most when examining government healthcare spending. According to National Health Accounts, 2017, 66 per cent of spending on healthcare is done by the states. India ranks 179<sup>th</sup> out of 189 countries in prioritisation accorded to health in its government budgets (consolidated union & state government). The state expenditure on healthcare is highly variable across states and is not fully explained by the income level of the state. The figures 9 and 10 illustrate the same: while healthcare spending per capita increases with the GSDP per capita, healthcare spending as a per cent of GSDP decreases with the GSDP per capita. Thus, the richer states are spending a lower proportion of their GSDP on healthcare. (Government of India, 2021, p.159)

**Figure 9: Public health spending per capita as per state GDP**



Source: Economic Survey 2020–21 Volume I

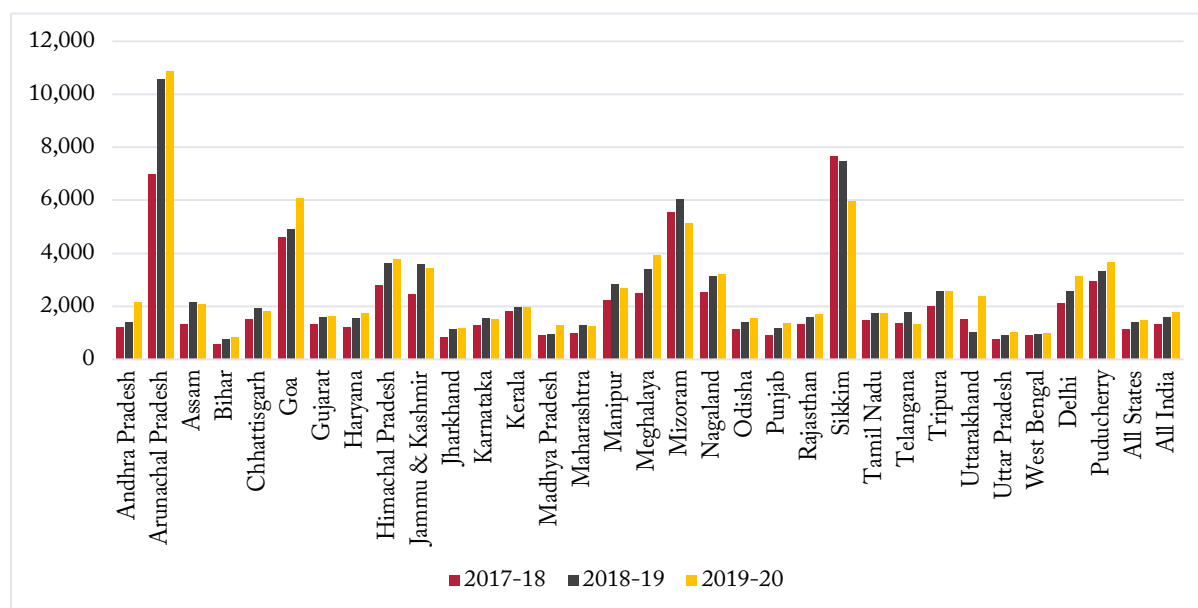
**Figure 10: Public Health Spending as Percentage of GSDP**



Source: Economic Survey 2020–21 Volume I

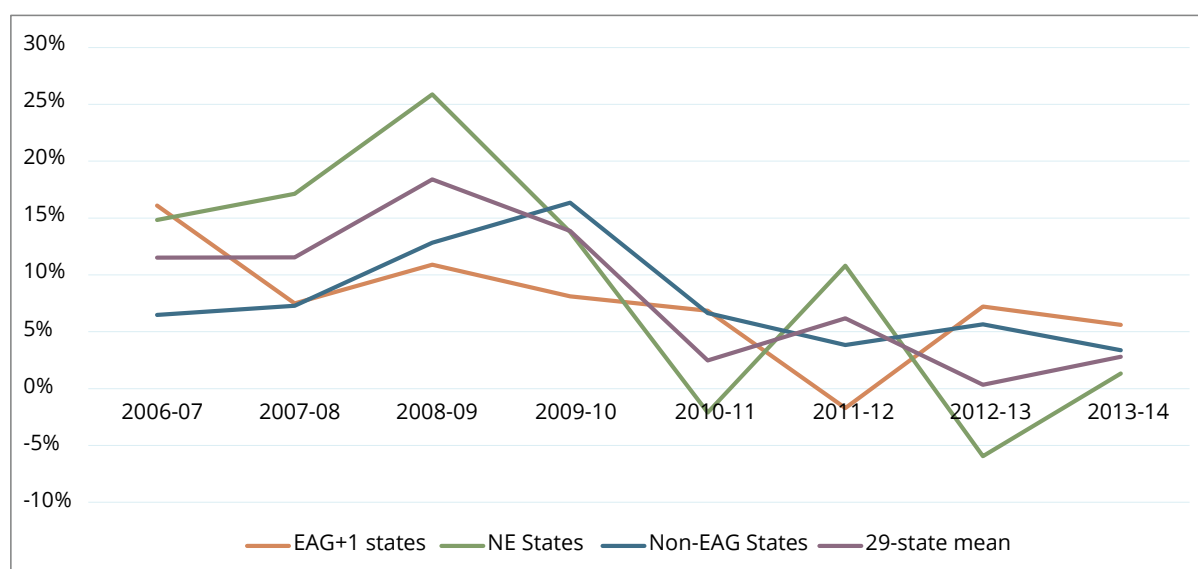
Differences in health expenditure across states remain wide (see Figure 11), ranging from less than 1,000 to over 10,000 and with considerable unpredictability. Berman et al. (2017) found a decline in the growth rate of per capita expenditure across 29 states (see Figure 12) and the absence of a trend in investments demonstrating a lack of planning and budget execution capacity. The differentials across states have been a result of several factors including governance, state capacity, economic and political context.

**Figure 11: Per capita Government Health Expenditure in Rs.**



Source: <https://www.thehindubusinessline.com/>, accessed on September 14, 2021

**Figure 12: Per capita Total Government Health Expenditure (real) growth rate**



Source: Berman, Bhawalkar, & Jha, 2017

There are two issues of concern in the financing of health. One relates to the total level of health spending, and the other to the quality of spending and where expenditures are directed. The latter is in turn linked with governance structures and fund-flow management in India's federal structure. This requires a view of financing that goes beyond the mere differentiation between public and private spending, to the architecture of financing, the quality of spending, its implications for health outcomes, pooling of health spend and other factors.

India's health system is in large part a reactive system, focused much more on treating the sick, as opposed to keeping its citizens healthy, which in turn proves to be expensive for citizens. Multiple studies have found health care costs of hospitalization to reduce with a strong focus on primary care. (Berman, Bhawalkar, & Jha, 2017).



The National Health Accounts (2016–17) estimate the break-up of current health expenditure to be: Primary Care, 45.2%; Secondary Care, 36.1%; Tertiary care, 13.9%; and governance and supervision, 3.3%. Private expenditure on Primary Care is 41.1%; Secondary Care is 42.4%; and Tertiary Care is 15.6%.

Berman et al. (2017) analysed primary care expenditures in 16 states in India to show these are low and insufficient, despite the main focus of the NHM (the primary vehicle for public health interventions) being primary care. Even though the NHM was launched with the purpose of equalizing health spend and outcomes across States, data from the first ten years of NHM spending found that little dent was made in this regard, with the Empowered Action Group (EAG) states constituting 7 of the 10 states with the lowest per capita total Government health expenditure (TGHE) (Berman, Bhawalkar, & Jha, 2017); a Rs 334 per capita TGHE in Bihar versus an 13-times greater amount in Sikkim. The researchers note that despite NHM being one-third of total health investments (in EAG states), they are a very small proportion of the GSDP: less than 0.15% in better-off states such as Kerala.

The researchers found that not only are primary-care investments normatively lower than global standards, but see wide variations across states. Their analysis found that better-off states spent less on primary care (in 2013–14) than the poorer ones (Chhattisgarh spent 74% of TGHE as compared with Kerala, Karnataka and Punjab spending 38%), possibly due to the dependence of poorer States on NHM funds, which constitute the larger share of health spend in these states. Importantly, despite the Central government focus on primary care, the share of primary care to TGHE, as noted by the authors, has plateaued or declined in most of the 16 states over the last 10 years. Investing in a strong public health system and primary care can result in better health outcomes and financial risk protection for citizens.

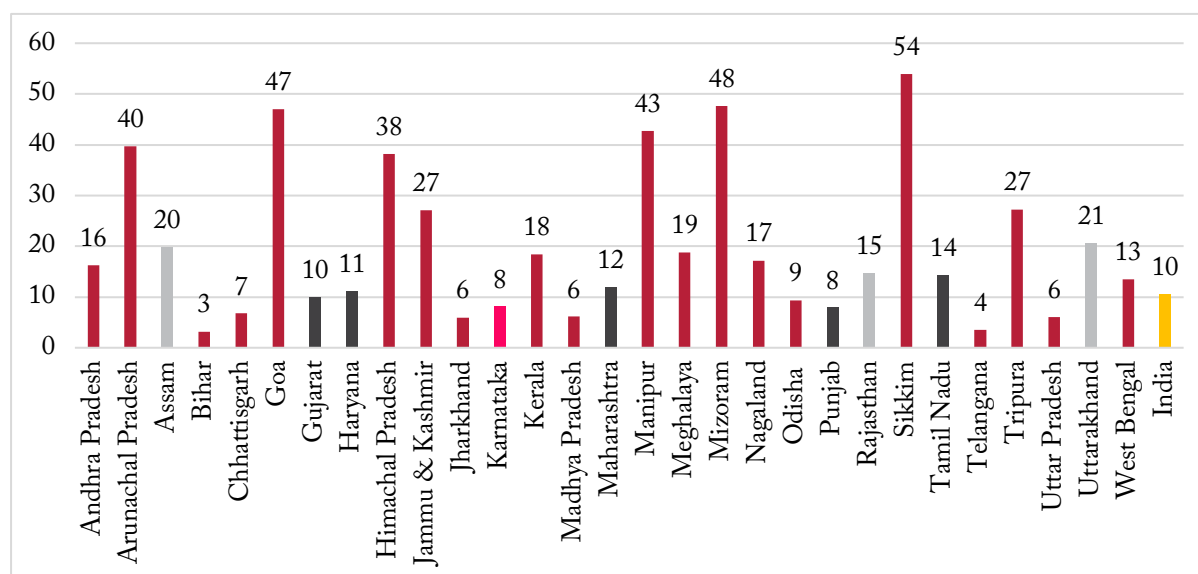
In order to understand primary healthcare spending at State level, two indicators as suggested by Ravi Duggal, have been analysed.<sup>7</sup> First, per capita public health expenditure, second, availability of government doctors per lakh population. It is interesting to see that economically better-off states do not spend amounts commensurate with their respective GDPs. In contrast, some of the EAG states, like Rajasthan and Assam, spend more on primary healthcare than do states like Maharashtra and Karnataka. This is also true for the availability of government doctors per lakh population. Assam and Rajasthan has comparatively more government doctors than Haryana and Gujarat.<sup>8</sup> (Duggal, 2020)

As per National Health Profile 2020 estimate, India has, on average, one government allopathic doctor for 10,452 population in comparison to the government doctor to population ratio of 10:10,000 recommended by WHO. This ratio varies across states (see Figure 13) with Sikkim having the highest at 5 doctors per 10,000 population. Bihar has the lowest with 0.3 doctors per 10,000 population. Interestingly, some of the EAG states like Assam, Uttarakhand, Rajasthan have a greater number of government doctors than economically better-off states like Punjab, Haryana, Gujarat, and Karnataka. Clearly, the availability of government doctors per 1,000 population is very low across all the states, which indicates that there is dire need of increasing primary healthcare spending to improve the health outcomes both at State and National level.

<sup>7</sup> State health budget does not segregate primary healthcare spending under a separate header.

<sup>8</sup> In fact, it has also been found that states that have robust primary healthcare i.e., more government doctors per lakh population and greater per capita spending on health, were less affected by Covid-19 as compared to other states (Source: <https://www.thehindubusinessline.com/>)

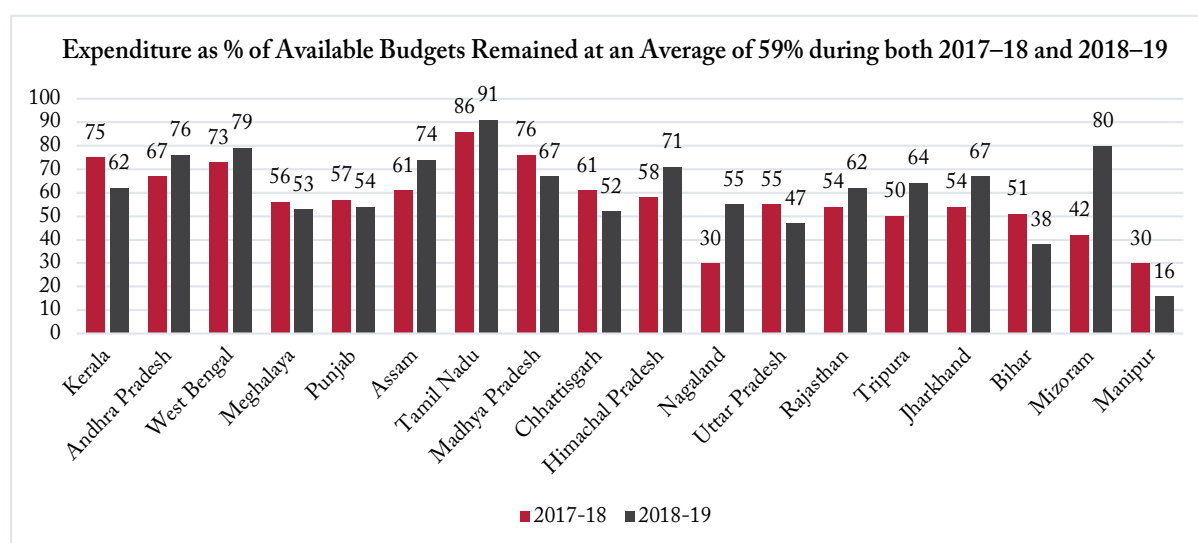
**Figure 13: Government Doctors per lakh Population (2019)**



Source: National Health Profile 2020, Central Bureau of Health Intelligence

On the quality of spending, beyond allocative efficiencies, technical efficiencies have been a concern, with large underutilisation across States. An analysis of 29 States by Berman et al. (2017) found the average utilisation rate for State treasury budgets to be 90% and for NHM to be 85% (data until 2014–15). However, analysis by the Centre for Policy Research for more recent years (2017–18 and 2018–19, Figure 14) found that NHM expenditure averaged at 59% of available budget.<sup>9</sup>Not only does the low utilisation of NHM budgets in poor states reduce the overall budget for health, and for primary care in particular, but also constrains their ability to receive larger funds in successive years (being dependent on utilisation certificates), which then get directed to richer states. Importantly, estimates by Berman et al. (2017) suggested that 100% utilisation would have increased the TGHE by 26% and 49% in UP and Bihar respectively in one particular year.

**Figure 14: Utilisation of NHM Funds across States**



Source: Budget briefs 2021-22, Centre for Policy Research

<sup>9</sup> In 2016–17 the utilisation of total available NHM funds was 55%, and by September 30, 2020 the utilisation for the financial year 2020–21 was 32%.



The reasons for under utilisation relate to capacity, design and operational issues. A combination of capacities, perceived lack of autonomy, and a risk-averse attitude has led to large underspend in flexi-pools, designed for innovations and local needs. Analysis found utilisation to be higher where the purpose of expenditure is well-defined and explicit, but lower where discretion is entailed (Berman, Bhawalkar, & Jha, 2017). Delays in budget planning and approvals led to delayed fund releases and utilisation at various levels.

More specifically, some of the variables impacting low quality in spending include: (i) budgetary systems and processes that include preparation, approval of budgets and funds disbursements; (ii) inter-governmental fiscal flows that determine the quantum of, and autonomy over, funds from one level to another; (iii) financial management systems at the spending level.

Budgetary systems and processes involve significant time lags at the beginning of the financial year in approval of NHM funds by the Central government which has a rolling effect on State allocations and release of funds to respective facilities. Additionally, routing of funds through State treasury instead of directly to the State health societies cause substantial delays in release of funds. The NHM budget is formulated around more than 1,000 budget lines, with limited flexibility in use across line items, contributing to constraints in effective utilization due to the rigidity in targeting resources. Inadequate capacity and systems further constrain utilisation of available funds. Lack of effective planning implies that funds sought, or allocated, are not always aligned with the most critical needs. Additionally, delays in sending relevant expenditure guidelines to grassroots governance stall routine spending contribution.

The lack of adequate planning has implied that State governments allocate and disburse funds to district, block, and village-level health facilities on a historical basis (Berman, Bhawalkar, & Jha, 2017), without clear assessment of requirements, leading to unfulfilled needs in some places and surplus funds in others. Changes in fund flows through state treasury has further increased delays. The current design of public financial management results in low expenditure tracking, does not enable adequate planning, and timely and flexible flows of government funds. These contribute to the current low levels of utilisation of public funds. Delayed transfers have been a common reason, with States receiving only 50% of approved Central budgets by the third quarter of the financial year in 2017–18 (Kapur & Baisnab, 2018).

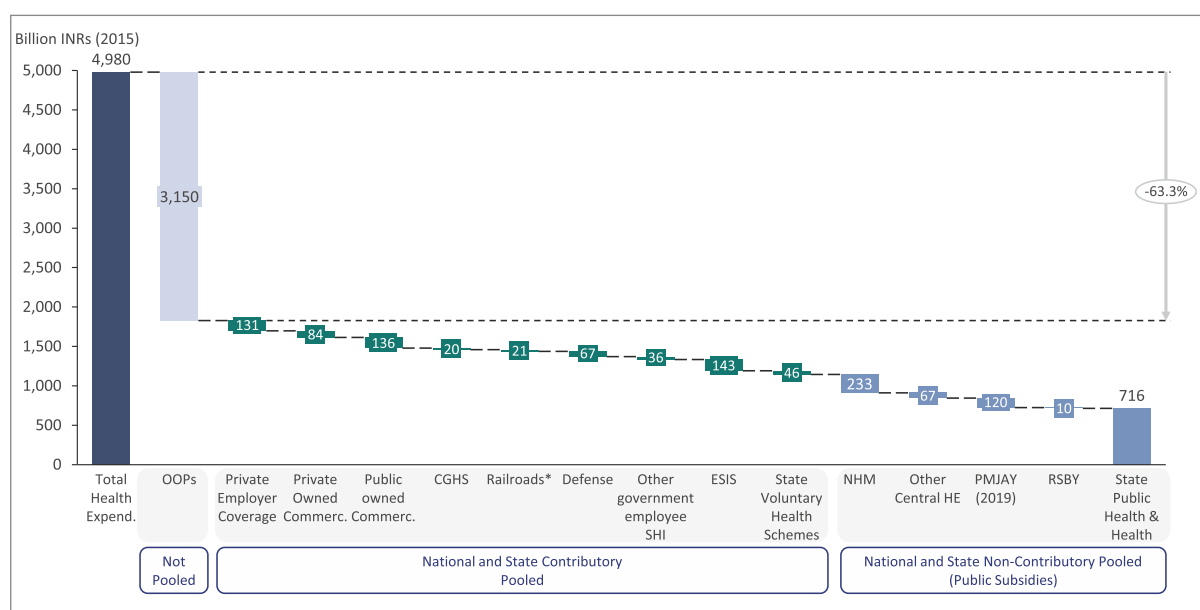
A key aspect relating to quality of spending is the extent of resource pooling. Health financing is fragmented at the level of revenue sources, health insurance or risk pooling,<sup>10</sup> and strategic purchasing; with multiple small contributory and non-contributory risk pools across the Centre and States (see Figure 15). The role of risk pools gets underlined in their ability to protect citizens from the negative consequences of health inaccessibility and financial shock. Despite this, multiple pools and low levels of strategic purchasing have diluted the potential to incentivise service-providers towards efficiency, responsiveness and quality. The funds that are pooled are also fragmented across multiple commercial, social and state-level pools, limiting the leverage of each purchaser to incentivise quality. India's health financing environment is thus characterised by multiple pools (contributory or non-contributory), and varied benefits packages. Reducing fragmentation in risk pools and improving their performance, needs to be a key area of attention for health financing.

The fragmented provider landscape and high out-of-pocket payments for healthcare make it difficult to motivate insurers to develop benefits packages for such a small scale, heterogeneous clientele. Challenges in expanding risk pools also relate to India's high labour informality (among the highest in the world at 90%) which prevents the use of salary-related contributions, limits income-tax collection, and makes mandatory contributions to pools operationally difficult (NITI Aayog, 2019).

<sup>10</sup> The management of financial resources that enables unpredictable individual financial risks to be distributed across all members of the pool.

A key aspect of public financing for health in India relates to benefits. Analysis by Cristian Baeza (NITI Aayog, 2019) shows that public spend on healthcare is, “neutral or moderately regressive in the case of hospital care, with the non-poor receiving most public funds.” An analysis by NIPFP found that 9% of government health expenditure benefited the poorest quintile, and 40% benefited the richest income quintile (Berman, Bhawalkar, & Jha, 2017). Baeza’s analysis finds that targeting public funds only to the poor could result in per-capita expenditures for the poor to triple.

**Figure 15: Low, Very Fragmented Risk Pooling, Household Out-of-pocket Funding at 64% of Total Expenses – Dominate System Financing**



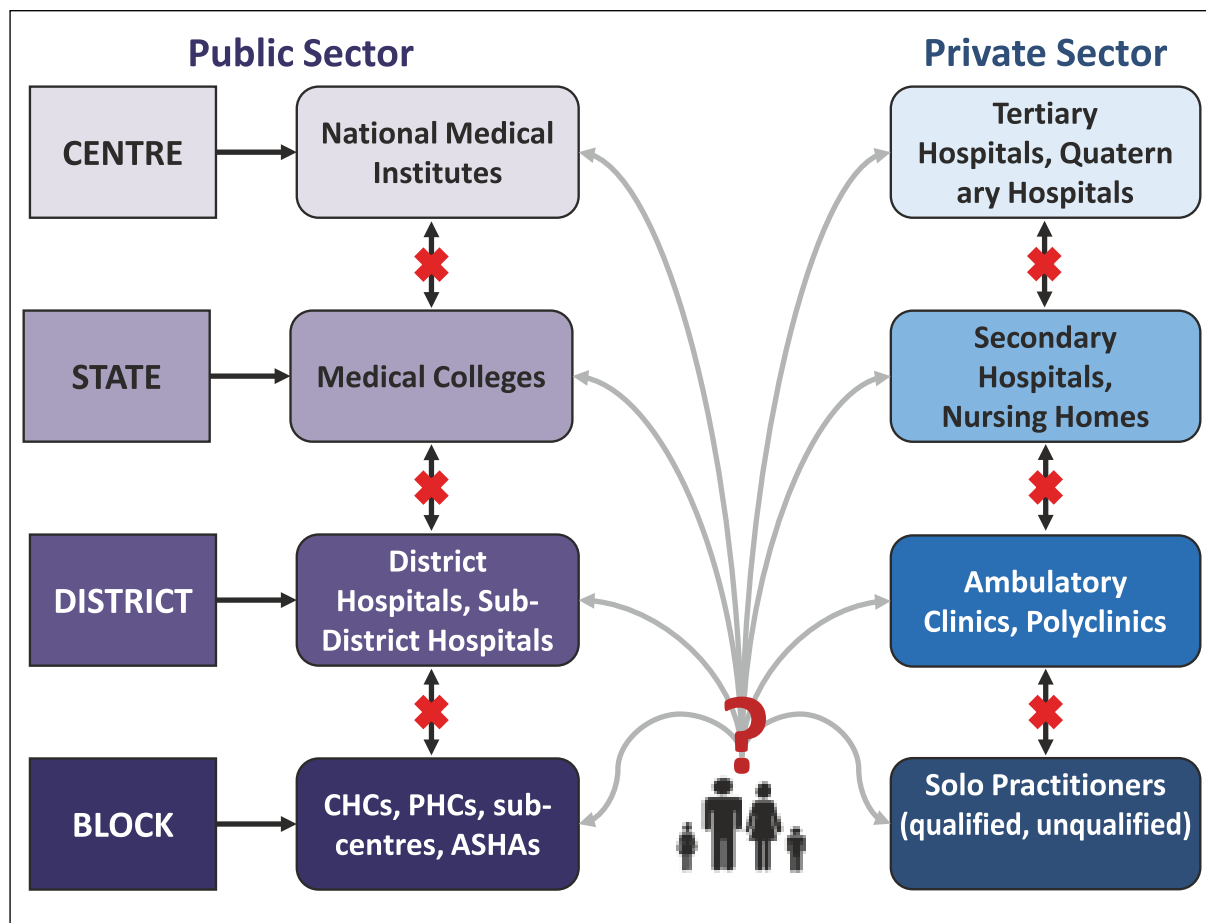
Source: *Health System for a New India: Building Blocks*, NITI Aayog (2019)

## Provision

A detailed analysis of the provider landscape, along with gaps and opportunities, has been outlined in a NITI Aayog diagnostic (NITI Aayog, 2019), drawing on multiple pieces of research. The diagnostic has surfaced key issues, outlined below.

As mentioned, the Indian health system is based on reactive engagement between citizens and the health system, when they are unwell, rather than an ongoing relationship focused on health promotion and disease prevention. A private sector, based on fees for service, does not have the incentives to focus on disease prevention and health promotion, while primary care in the public system has largely focused on family health and infectious disease, rather than population health management. These aspects result in low levels of, and delayed, diagnosis and treatment across many ailments.

Both private and public provision systems are vertically fragmented across levels of care, with little coordination between them: the private ranging from solo providers to large hospitals and the public ranging from sub-centres to medical institutes (see Figure 16). The resultant environment is one where patients (in a context of information asymmetry) navigate themselves from one level to another, often accessing the improper level, with no systematic referrals or loop backs, and contradictory advice.

**Figure 16: Vertical Fragmentation within the Delivery System**

Source: *Health System for a New India: Building Blocks*, NITI Aayog (2019)

Horizontal fragmentation of provision further adds to the inefficiencies and lack of effectiveness through parallel disease programmes and a lack of coordination across the public and private systems. Rather than the primary system providing a set of comprehensive services for health promotion and disease prevention, the staff, budgets, supervision, management information systems (MIS) are all designed in a way to engage with patients/citizens within a particular programme such as the National TB Control Programme, Universal Immunisation Programme, JSY etc. Not only does this lead to a sub-optimal use of resources, but the fragmented management implies losing the opportunity of leveraging citizen engagement over one issue for another. Independent data systems for each disease implies the lack of comprehensive data sent for each patient. All of these factors combine to highlight a provision system not optimally geared to achieving UHC.

As mentioned before, the large part of health services in India are sought from private providers, despite which there is little coordination or partnership between State delivered and private systems, which run in parallel and often in competition. The reasons for the lack of partnerships between the two are many, including a lack of trust; a scattered private system that has no representative(s) or “centre of gravity” (NITI Aayog, 2019) that can engage with policymakers or the public providers on behalf of others; overlapping roles where both the public and private address curative needs; the government not viewing private providers as a key stakeholder in health delivery; unclear financial incentives for the private sector to partner with the public system. There is thus no single vision of the health system, with clear and complementary roles for the public and private actors and joint accountability.

The private provider landscape is not organized, is heterogeneous, has no database, includes a large number of informal providers, all of which combines to constrain meaningful participation in policy and health delivery in collaboration with the State, as also regulation (with the bulk of the private provision delivered through solo or very small providers). The lack of organisation limits their ability to negotiate contracts, rates, and processes with health purchasers. Empanelment of providers therefore, has largely focused on tertiary care with large hospitals, rather than the numerous smaller providers for lower level of care.

The gaps in health workforce, both managerial and technical, have contributed to the challenges of health provision in the public system. A combination of a shortage of doctors, skewed distribution, mismatch in skills (with clinicians undertaking management and health-system related responsibilities), the lack of flexibility and autonomy in managing health facilities, and the lack of accountability (leading to extensive absenteeism, or the 'know-do gap' for example) in a system driven by inputs—all combine to create a system of provision that delivers below par.

Quality in service provision has been a long-recognised challenge, driven by the input focus which obviates attention to outcomes or incentives for performance; a data regime that is incomplete and often inaccurate; sub-optimal functioning of quality assurance structures (such as State quality assurance units); and weak facility regulation. The lack of effective regulatory mechanisms have not only resulted in quality challenges, but equally those of affordability. The National Accreditation Board for Hospitals & Healthcare Providers, as also the Clinical Establishment (Registration and Regulation) Act, 2010, (the CEA)—are attempts to address these challenges, but their reach and capacity needs to be expanded. The CEA aimed at regulating all public and private medical establishments with minimum standards of operations.

The lack of focus on minimum standards and accountability has led to a large number public facilities not functioning due to shortages in staff, equipment and medicines. While these gaps have contributed to people moving away from public facilities, studies focusing on private facilities find similar challenges there as well.

Provision inefficiencies abound, especially with inappropriate use of hospitals, where primary care is bypassed. National Sample Survey Organisation (NSSO) data from 2016 reveals 40% of people sought hospital care directly, without a visit to primary facilities. Redundant and delayed treatments have been common outcomes of these inefficiencies and of the absence of accountability.

## **Governance, State Capacity and Accountability**

Health is a State subject in India (with some elements on the concurrent list), but the Union government's involvement and control is significant. Consequently, programmes are designed and decisions taken, often three levels away from the site of implementation (such as for the NHM), with a large part of the devolved funding for health to the States being tied (for example, 40% of NHM funding is to be provided by States for specific budget line items). In a federal context, Center-State engagement framework with role clarity, areas of control, and delegation to different levels of governance, setting responsibility, accountability and autonomy at different levels, are all fundamental elements that have a bearing with health outcomes. In India, many of these lack clarity.

Given the diversity of health needs across states and within states, the States need to play a larger role in prioritising and designing health responses. Centrally Sponsored Schemes (CSS) have been viewed as a tool through which the Central government conveys its commitment to welfare; although in reality a centrally designed and controlled one-size-fits-all programme does not necessarily fulfil the social welfare need at the local level. While States and local governments are constitutionally recognised governance structures, the manner of CSS design makes them mere instruments of implementation. With centrally driven schemes in a context of health being a State subject, the

notion of credit and ‘blame’ can easily be used as a political tool, underlining the need for clear autonomy and control across the Centre and States.

It is not only the need for empowering roles in a federal structure, but role clarity amongst institutions at the Central level too needs attention. Drawing from the experience of the Covid response, a large number of institutions at the Central level were engaged with the response— the Prime Minister’s Office (PMO), Ministry of Health (MoH), MoHFW, ICMR, NCDC, Office of the Principal Scientific Adviser (PSA), NITI Aayog, and empowered groups, etc. The responsibility of each, at times, overlapped and the final decision-making authority was unclear. The Covid response offers examples of such overlaps, where different databases across different organisations resulted in the absence of a single source of evidence. In the current context of multiple sources of data, the identification of the most appropriate mechanism/institution as repository of data, with ability and empowerment to analyse it and share with relevant authorities, is required.

In India’s federal structure, a system at the National level that is fed into by data from States and analysis fed back to the States, would empower both the Centre and the States to make evidence-based decisions. Learnings from the first wave were fragmented, without a seeming machinery to capture them in a systematic manner, and applied in subsequent waves (for example on oxygen needs, need for war rooms and dashboards). Some countries (such as UK and China) revamped their public health institutions during the pandemic, aimed at clearer roles and greater empowerment. A question that India needs to engage with is whether it will gain from a stronger, more empowered public-health entity at the National level, focused on decisions based on science and evidence.

State capacity is increasingly getting attention as a key determinant of public delivery and its outcomes. In the context of health, India has a large number of institutions, both at the central and state level; their adequacy, capacity, synergy, and autonomy have a strong bearing on how health is managed in the country. Beyond clarity of roles, the incentive to address State capacity has possibly been diluted due to the exit of the elite and much of middle class who have ceased using public services. As mentioned, a large proportion of health services are accessed through the private sector; with the poor too exiting from the use of public facilities. The lack of pressure to improve services dilutes the incentive to address this issue, which in turn further disincentivises the use of public services. This has become a challenging, vicious cycle.

India’s view on accountability has more to do with accounting, ensuring that funds devolved are spent. This need for control over funds diverts attention away from accountability for outcomes, as the key responsibility is assumed to be ensuring expenditures that are accounted for. Weak systemic accountability for outcomes can be viewed as a function of low demand, which in turn is driven by poor quality and accountability, emerging from low State capacity. Building capacity will not only influence demand (through better quality), but accountability as well, as demand increases.

Effective governance and accountability are linked with a strong data, analytics, and research system, to ensure that policy, decisions and communications are not disconnected from appropriate evidence and analysis, and that actions on the ground are managed to effectively respond to relevant needs. India’s experience with data gathering, its transparency and analysis has been less strong than required. The Covid response underlines this need. A stronger surveillance and epidemiological research system could have helped track variants and carry out genome sequencing to better manage the second wave of the pandemic, including infrastructure/vaccine needs with an understanding of where each variant is spreading. On the operational front, better availability and use of data and transparency would lead to better management and availability of critical inputs—beds, oxygen, drugs. Where this was addressed through effective dashboards, such as in Mumbai, the infrastructure management was more effective.



## Health and the Federal Structure

Health is a State subject in India's federal structure, but roles, responsibilities, and fiscal control are spread across both levels of governance. The Centre has a dominant role in policy formulation, infrastructure development, design of programmes, and the creation of institutions. Certain areas, such as population control and family planning, fall in the concurrent list and therefore under the purview of the Central government. Institutions for training and research also fall under the purview of the Central government.

While centralised, it could be argued that this architecture has nevertheless enabled progress on multiple fronts—eradication of polio, reduction in MMR and IMR, to name a few. Central role through the National Rural Health Mission (NRHM under NHM), has contributed to the creation of a volunteer health workforce (900,000 community volunteers), added 178,000 personnel to the regular public health system workforce, and has resulted in critical health infrastructures and design innovations. Additionally, Avani Kapur notes that Centrally-sponsored schemes have enabled ring-fencing of social sector budgets; in the absence of which priorities at the State level may be entirely guided by political rather than social imperatives (Kapur, 2019).

Despite these benefits, continuing inter-state disparities in outcomes and those across community groups are a key concern, with the single design for all states failing to respond to state-specific and divergent needs and contexts. A fixed design, along with an input budgeting system, implies that states are unable to undertake reforms that are divergent from the Central vision of healthcare priorities and delivery. States with a stronger fiscal status have been able to undertake such reforms, such as Tamil Nadu's focus on public health.

A key variable in the successful delivery of health services relates to fiscal autonomy and flows. While States are the primary governance structures to deliver health, they don't necessarily have the fiscal powers to deliver on these responsibilities, as most tax revenues are controlled by the Centre. Specific-purpose transfers from the Centre, inter-governmental transfers, and loans then become vehicles for States to deliver on their role. The multiple instruments of transfer create a fragmented structure of fiscal transfers, in a significantly centralised fiscal architecture. As Yamini Aiyar notes, India has an "increasingly decentralised political economy coexisting with a deeply centralised fiscal architecture." (Aiyar, 2018)

The centralisation of India's fiscal architecture has continued over time with the blurring of lines between the Centre's roles and that of the states. Avani Kapur (2019) points out how the Finance Commission's own analysis between 2005–2012 showed that the Government of India's spending on State subjects increased from 14%–20%, and its spending on Concurrent subjects increased from 13%–17%. She further notes how priorities and funding are Centrally controlled through CSSs, which serve as instruments to further political objectives and gain citizen favour. Even the transfer to local governance institutions is accompanied by a "framework for states of preparing detailed plans which converged Finance Commission funds with other Government of India CSSs." (Kapur, 2019) In this manner, States, in large part, have become the implementing arm of programmes designed and controlled by the Centre, rather than having the autonomy to develop their own contextually appropriate programmes. As per the 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendments, local governance was to be empowered both functionally and fiscally. However, just as with Central control over States, State control over local government is the norm. States have their own institutional mechanism to implement programmes, and local government is rarely empowered to expand revenue sources that can increase funds controlled by them.

It is not that attention has not been paid to more effective decentralisation of fiscal resources. Sub-national fiscal transfers have undergone reform. While the aims were well aligned to State equalisation and autonomy, the details relating to operationalisation and other structural changes,

undermined success. Based on Finance Commission (12<sup>th</sup> and 13<sup>th</sup>) and NRHM transfers, a working group chaired by the Centre for Global Development and Accountability Initiative concluded that fiscal transfers did not succeed in reducing inequalities in health expenditure and outcomes across Indian states (Centre for Global Development, 2015).

The 12<sup>th</sup> Finance Commission recommended equalisation grants for health to seven States with the lowest health indicators, with transfers aimed at equalising per capita health expenditure across States and prioritising health expenditure through State finances. However, conditions attached to the transfers—such as setting up of a committee to monitor grants and requirements from States to increase their own budgetary expenditure—led to significant underutilisation of funds. The 13<sup>th</sup> Finance Commission made transfers contingent on improving health outcomes, though challenges with data implied that States with IMR reductions did not necessarily receive the transfers due to them. Even though NRHM was designed to address interstate inequities in infrastructure, human resources and MCH services, the actual NRHM spend became a function of the ability of States to request and spend funds, rather than their need. The requirement to adhere to budget line items and the need to adhere to nationally-defined norms implied that States did not have the flexibility to utilise funds as per their contextual needs.

An analysis of the NHM found that despite the original objective of providing additional resources to states which needed them, complexities in design and processes meant that States with poorer health indicators did not necessarily get larger per capita transfers. Glassman and Mukherjee (2015) note that the average growth of expenditure of the Centre in worse-performing States, has been lower than in the better-performing States. Their findings reinforce those by Avani Kapur, when they note that the aim of Central flows addressing differentials in levels of health and fiscal need at State level, did not get fulfilled through the fiscal architecture, nor did these flows incentivise a State's fiscal prioritisation on health.

The 14<sup>th</sup> Finance Commission responded to the centralisation of fiscal approach through increased untied resources to States, direct transfers to local bodies and recommendations to the design and implementation of CSS'. Rationalisation of schemes, a transparent criterion for fund allocation, increased fiscal flexibility to States through earmarking 25% as flexi-fund, and allowing States to choose their priority areas within a CSS or across CSS' were some of the recommendations (Kapur, 2019). Despite these changes however, Avani Kapur points out that the composition of financing for states has not changed in any significant manner, for two reasons. One, the increase in states' share of CSS' led to States ring-fencing untied resources for CSS'. Two, a decline in the divisible pool of taxes, with increased cesses and surcharges, meant that the increased percentages of State transfer did not lead to significant increase in absolute amounts (Kapur, 2019). Social sector expenditure as a proportion of GSDP, while variable across States, on an average remained the same before and after the implementation of these recommendations. The changed fiscal flows post the 14<sup>th</sup> Finance Commission thus did not result in any significant shift in social sector-prioritisation through expenditures.

Aiyar points out that negotiation around greater fiscal decentralisation has not been a rallying point for states or been a key focus of the federal discourse (Aiyar, 2018). Some have argued for an institutional mechanism to enable a meaningful co-operative federalism agenda. While the Planning Commission was replaced with the NITI Aayog, the latter did not serve the purpose of federal dialogues.

## Political Economy

The continuing gaps in access to and quality of healthcare, as well as expenditure incurred on healthcare (both public and out-of-pocket) remain not because the constraints and technical solutions are not known. While not exhaustive, there does exist a body of both diagnosis and possible pathways; yet, policy reform and increased public expenditure on health have been elusive in any meaningful manner, pointing to health losing out as a political priority in the heavily contested policy space, driven by political incentives.

Political commitment is central to health investments and policy, health systems, health outcomes and financial risk protection, through its ability to drive: (i) resource allocation; (ii) capacity and accountability in public systems; (iii) reforms that can in turn strengthen preventive, promotive and curative health through prioritisation of public health, a quality and equitable primary healthcare system integrated with tertiary care; and, (iv) improved budget utilisation through allocative and technical efficiencies. Political will is fundamental to each of these pillars, which in turn impact and enable other shifts, such as the combination of relevant reforms and increased public resources contributing to financial risk protection for individuals.

The positioning of health, by leaders and individuals, as a driver of national aspirations, human development and growth, as also individual aspirations, becomes an influencer of attention and priority accorded to it. The best designed systems may fail to yield results in the absence of political priority to health. This then becomes a key variable for system performance.

There is significant literature that points to the multiple factors that have driven political attention and commitment to healthcare in different countries in the world. Demand from citizens and electoral incentives; macro-economic drivers such as healthcare contribution to GDP and reduction in poverty by a reduction in out-of-pocket expenditures; and global pressures are some. The process and drivers of setting priorities and making decisions, and the interaction of different actors (political and others), are as critical to realising political attention as is laying out the technical solutions to healthcare challenges. Apart from political leaders and national and sub-national government, several other institutions—such as multilateral organisations, donor governments and philanthropies, citizens and industry bodies—influence the process of what decisions are made, by whom and through what process. Health policy thus, can be seen as a political process, driven as much if not more, by ‘interests’ than by evidence.

For India, the lack of political attention to health stems from multiple directions.

- Healthcare has not been positioned in a manner that makes its political incentives clear. This implies that not enough attention has been given to: (i) making the case for the links between health, human capital and growth promotion; (ii) making the case between improved health systems and reduction in household expenditures on health and related income-loss, reducing descent into poverty; (iii) positioning health as a key element of citizens’ aspirations.

At a macro level, research has highlighted the links between building human capital (through health and education) and growth. For a large number of Indian citizens, health, education, and nutritional levels constrain effective participation in many sectors, positioning health not merely as a welfare issue, but equally a potential influencer of India’s growth. Yet, health does not find a place in India’s growth strategy. India has not accorded priority to human capital development, and there is no framework that positions health and human capital development within India’s growth model. An analysis of how this has de-prioritised the health, nutrition and education levels of its population, along with its implications for the country’s growth path could be instrumental in changing attention to health.

Health-related expenditures are estimated to push 3.5% of the population below the poverty line;



with those already below the poverty line pushed deeper into poverty. Research across India, Africa and Latin America found health-related expenses to be the prime reason for households descending into poverty (even when income had been secure to begin with), and that millions of households live 'one illness away' from poverty (Krishna, 2013). This means that even as citizens (rightly) prioritise income, health-related expenditures can so easily and dramatically change the economic status of households. Better health systems and services are key to prevent this health-related descent into poverty; yet this is not a national priority.

Political incentives could also be a factor of 'credit', and in India's federal and multi-layer governance system, clarity in 'credit' from healthcare services, may further diffuse potential political incentives. Timelines for reforms is another variable where reforming the healthcare system may be viewed as too long-term an agenda, and therefore not conducive to immediate political gains, which are easier with health delivered in a clientelist mode.

- Pathways and pilots at different governance and administrative levels (sub-national and sub state) are required to garner political interest from relevant leaders, both bureaucratic and political. Much more needs to be done on identification of clear, acceptable and feasible pathways to health system reform (aimed at improved health and financial protection), through a combination of public and private provision, with the state as steward and regulator, which can offer a coherent response to current constraints and political benefits at national, state and sub-state levels.
- The absence of health, as an electoral demand from citizens, dilutes its electoral (and consequently political) salience. Data, from the CSDS Lokniti 2019 post-poll survey, highlight development as the most important priority for voters, followed by unemployment, price rise, corruption and economy. Health/hospital facilities were mentioned as a key issue by a mere 0.3% of the sample surveyed. The 2014 post-poll survey revealed similar results, with health mentioned as a key priority by just 0.4% of the sample. State assembly polls have been no different. Lokniti's Bihar post-poll data for the 2020 assembly elections revealed development, unemployment and inflation as the top three priorities amongst voters, with health cited as a priority by only 0.3 % of the sample. Delhi showed similar findings too, and the 2016 pre-poll survey in Kerala found a low of 0.2 % of the sample rating healthcare as the most important issue for their voting choice.

The reality is that the middle class has quit using public services and the poor are increasingly moving in the same direction towards private health services; 70% of inpatient care and 80% of ambulatory services are being provided by the private sector. In such a situation, who then will demand better public health services?

The battlefield of elections seems to be increasingly moving away from the direct issues that impact the quality of life of citizens. Much needs to be done by way of citizens understanding the location and primacy of health in their aspirational journey and its impact on their economic status, and asking for better healthcare; and for National/State leaders to acknowledge the role of health in a Nation's/State's economic journey. There has been limited engagement with citizens on increasing understanding of the role of the State in: (i) delivering healthcare; (ii) the role of health in the citizens' aspirational journey; and, (iii) the potential for reduction in household health expenditure, thereby positively impacting household economic status.

- The absence of focused institutions (formal or informal) that can promote and sustain attention to health system issues has contributed to low political attention to health. Other areas, such as employment, food, education, information, have experienced strong ground movements and other institutions that combined to lead the way to reforms. The health sector has not received such attention.

With little citizen demand, and limited appreciation of the health-economy link, it is not surprising that political and electoral attention to health has been limited, with the health sector in India having one of the lowest public investments, disproportionate use of private services which are extremely fragmented, and 62% of healthcare expenditure being out of pocket at point of service. Other countries, as also some Indian states, have understood the electoral significance of health. Reforms in Turkey, Mexico, Thailand (to name just a few) were built on an electoral foundation. Priority to insurance schemes in Indian states has been linked with electoral gains. Yet, attention to the health sector more broadly and in any meaningful manner has not been strong.

While citizen demand and the macro economy are key variables in prioritising health, the experience of other countries has demonstrated the role played by ideology of the political party in power and/or the need to seek political legitimacy, both of which have often driven attention to reforms. China, Vietnam, Thailand (amongst others) witnessed health reforms stemming from the ideology of the ruling party, which believed in welfare and equity. Where a new regime was yet to establish its credibility with the voter base and form a social compact with citizens, the motivation for reform was borne out of seeking political legitimacy through addressing a key and felt need amongst citizens; reaping electoral benefits from political capital formed.

Turkey, Indonesia, Brazil, Philippines are some countries whose experience speaks to this. The achievement of tangible improvement in benefits provided governments legitimacy in two ways. One, it contributed to the political legitimacy needed to sustain the government itself and second, it provided the legitimacy to undertake further reforms. This was then a reinforcing cycle, where key reforms—well implemented and effective in addressing critical needs—sustained governments, which in turn contributed to sustaining reforms. The experience of Turkey illustrates this well. Well-implemented reforms fuelled expectations from citizens (at the very least, from those benefiting from the reforms), which led to increased citizen demand, creating the space for further reform.

This then underlines the importance of state capacity as a key variable in the political economy of health; the ability to implement reforms well and achieve improved outcomes will lead to the needed social compact between the government and its citizens, and consequently, to electoral gains. Where leaders are not confident of the capacity to deliver well, health will likely be delivered in a clientelist mode, rather than taking a systems approach. Thus, both incentives to, and confidence in, prioritising health systems are driven by the capacity to deliver it well. In their absence neither will citizens see the potential gains and prioritise it as an electoral demand, nor will leaders set this as a policy priority.

Viewed as a chicken and egg situation, this then further underlines the need to focus on an architecture and system that respond to the current capacity of the state and other stakeholders in the immediate term, while building on such capacity in the longer term. Higher state capacity—which results in better outcomes, and better response to the specific needs of citizens—could well drive the much-needed trust between citizens and the state, leading to greater tangible demand for better healthcare, rather than a mere transition from public services to private ones. Thus, while the political prioritisation of health is central to driving health reforms and health financing, such prioritisation in turn is driven by elements of state capacity, the structuring of health programming and fiscal autonomy in a federal architecture, and a systems architecture that delivers successfully, all of which need attention simultaneously.

## Conclusion

While India has made progress on health, its potential to advance its health status has not been realised fully. Reforms in the country's health systems will contribute to that, and discussion on the kind of technical reforms needed, for both public and curative health, is growing. However, a full view of India's mixed, heterogenous health system—and how it can be better integrated to provide more effective services leading to better outcomes—needs much more policy attention. The public and private delivery systems continue to be analysed and discussed separately, while the need is to move towards better integration and a common stewardship. Beyond the technical and administrative aspects of the health-delivery system, issues of governance and accountability, particularly in India's federal structure, hold relevance for effective health delivery as they do for much of social policy implementation. Much more attention to roles and fiscal autonomy across levels of governance will likely contribute to improving returns on investment and advancing health outcomes.

## References

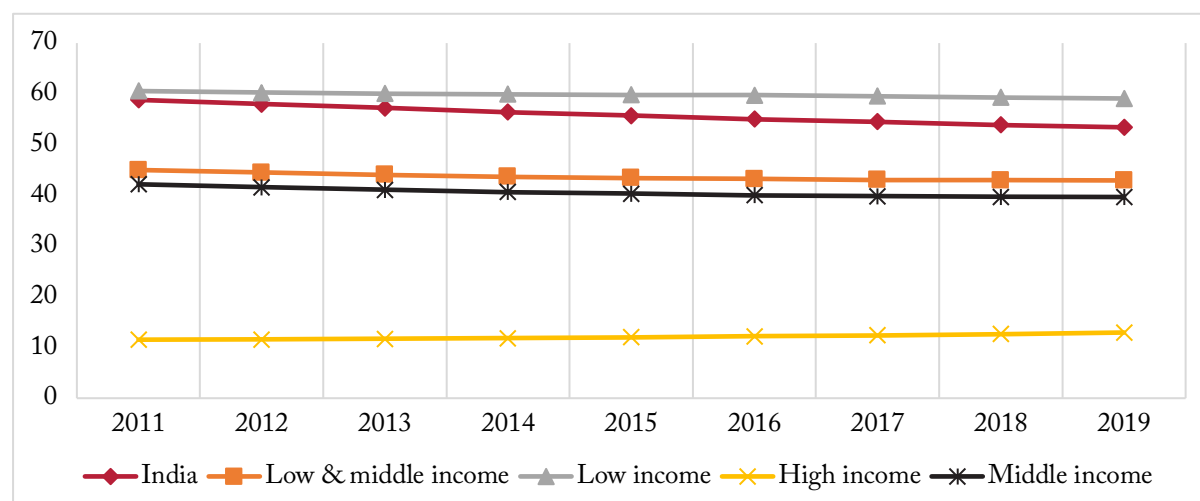
- Aiyar, Y. (2018, April 25). Time to deepen the federal dialogue. Hindustan Times. Retrieved November 29, 2021, from <https://www.hindustantimes.com/analysis/time-to-deepen-the-federal-dialogue/story-qwjECrH98XYwTjTHU66knM.html>
- Anant, P., Bergkvist, S., Chandani, T., Katyal, A., Rao, R., Reddy, S., Rao, A., & Khan, I. (2016). *Landscaping of Primary Healthcare in India*. ACCESS Health India.
- Anirudh, K. (2013). *One Illness Away: Why People Become Poor and How They Escape Poverty*. Oxford University Press.
- Arokiasamy, P. (2018). India's Escalating Burden on Noncommunicable Diseases. *The Lancet*, 6(12), e1262–21263. doi:[http://dx.doi.org/10.1016/S2214-109X\(18\)30448-0](http://dx.doi.org/10.1016/S2214-109X(18)30448-0)
- Atreya, S. (2020, June 18). Health a state subject, but Covid proved how dependant India's states are on Centre. *The Print*. Retrieved November 21, 2021, from <https://theprint.in/opinion/health-a-state-subject-but-covid-proved-how-dependant-indias-states-are-on-centre/442602/>
- Berman, P., Bhawalkar, M., & Jha, R. (2017). *Government financing of health care in India since 2005: What was achieved, what was not, and why?* Harvard T.H. Chan School of Public Health.
- Central Bureau of Health Intelligence. (2020). *National Health Profile 2020*. Ministry of Health and Family Welfare.
- Centre for Global Development. (2015). *Power to the States Making Fiscal Transfers Work for Better Health*. Centre for Global Development.
- Dandona, L., Raban, Z.M., Guggilla, K.R., Bhatnagar, A., & Dandona, R. (2009). Trends of public health research output from India during 2001–2008. *BMC Medicine*, 7(59), 1–13. doi:[doi:10.1186/1741-7015-7-59](https://doi.org/10.1186/1741-7015-7-59)
- Duggal, R. (2020, June 3). States that spend more on healthcare less affected by Covid Impact. *The Hindu BusinessLine*. Retrieved from <https://www.thehindubusinessline.com/>
- Finance Commission. (2020). *FINANCE COMMISSION in COVID TIMES: Report for 2021–26*. Government of India.
- Glassman, A., & Mukherjee, A. (2015, April 1). Getting centre-state relations right for health in India. Ideas for India. Retrieved November 29, 2021, from <https://www.ideasforindia.in/topics/macro-economics/getting-centre-state-relations-right-for-health-in-india.html>
- Government of India. (2021). *Economic Survey 2020–21, Volume I*. Government of India.
- IIPS. (2021). *National Family Health Survey Report 2021*. International Institute of Population Sciences.
- International Institute of Population Sciences. (2016). *National Family Health Survey Report 2015–16*. International Institute of Population Sciences.
- Kapur, A. (2019). Federalism and Social Policy. Accountability Initiative, Centre for Policy Research. Retrieved November 29, 2021, from <https://accountabilityindia.in/publication/federalism-and-social-policy/>
- Kapur, A., & Baisnab, P. (2018). *National Health Mission, Budget Brief*. Accountability Initiative, Centre for Policy Research.

- Karan, A., Negandhi, H., Hussain, S., Zapata, T., Mairembam, D.S., Graeve De, H., Buchan, J., & Zodpey, S. (2021). Size, composition and distribution of health workforce in India: why, and where to invest? *Human Resources for Health*, 19(39), 1–14.
- Krishna, Anirudh. 2013. *One Illness Away: Why People Become Poor and How They Escape Poverty*. Oxford University Press UK. October 2013.
- Mohan, P. (2018, October 29). Why India's primary healthcare is reeling and what it can learn from others. *Business Standard*. Retrieved November 29, 2021, from [https://www.business-standard.com/article/current-affairs/why-india-s-primary-healthcare-is-reeling-and-what-it-can-learn-from-others-118102900069\\_1.html](https://www.business-standard.com/article/current-affairs/why-india-s-primary-healthcare-is-reeling-and-what-it-can-learn-from-others-118102900069_1.html)
- MoHFW. (2016). *Report of the Task Force on Comprehensive Primary Health Care Rollout*. Ministry of Health and Family Welfare.
- Mor, N. (2020, February). Financing for Primary Healthcare in India. doi:DOI: 10.13140/RG.2.2.24545.25441/3
- Mor, N. (2020a). Primary care design for India. doi:10.13140/RG.2.2.27253.12004/1
- Narain, J.P. (2019). Why investing in public health is so critical. *Indian Journal of Community Medicine*, 44(3), 185–187.
- NHSRC. (2018). *National Health Accounts Estimates for India*. Ministry of Health and Family Welfare.
- NITI Aayog. (2019). *Health System for a New India: Building Blocks*. NITI Aayog.
- Parliamentary Standing Committee . (2020, March 3). ONE HUNDRED EIGHTEENTH REPORT ON DEMANDS FOR GRANTS 2020-21 (DEMAND NO. 42) OF THE DEPARTMENT OF HEALTH AND FAMILY WELFARE. Retrieved from [https://rajyasabha.nic.in/rsnew/Committee\\_site/Committee\\_File/ReportFile/14/121/118\\_2020\\_3\\_15.pdf](https://rajyasabha.nic.in/rsnew/Committee_site/Committee_File/ReportFile/14/121/118_2020_3_15.pdf)
- PRS Legislative Research. (2020). *Demand for Grants 2020–21 Analysis: Health and Family Welfare*. PRS Legislative Research.
- Rao, D.K., Bhatnagar, A., & Berman, P. (2012). So many, yet few: Human resources for health in India. *Human Resources for Health*, 10(19), 1–9.
- RBI. (2020). *COVID 19 and its Spatial Dimensions in India*. Reserve Bank of India, Government of India.
- UN Population Division. (2018). *World Urbanization Prospects: The 2018 Revision*. Retrieved November 29, 2021, from <https://population.un.org/wup/Download/>
- UNICEF. (2021). *Direct and indirect effects of COVID-19 pandemic and response in South Asia*. UNICEF.
- World Bank. (2019). *World Development Indicators: Data Bank*. Retrieved November 29, 2021, from <https://databank.worldbank.org/source/world-development-indicators>

## Appendix

### Global comparison of key health indicators related to sustainable development goals

**Figure 17: Comparing Prevalence of Anemia among Children based on World Bank Classification of Countries by Income Level**

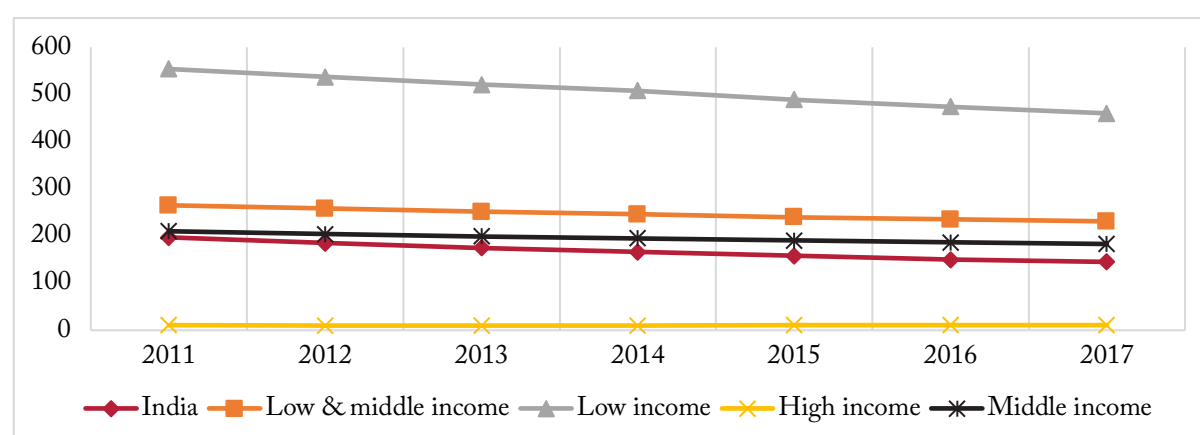


Source: Health Nutrition and Population Statistics, World Bank, 2021

### Prevalence of anaemia among children

According to Health Nutrition and Population Statistics, prevalence of anaemia, children ages 6-59 months, is the %age of children ages 6-59 months whose haemoglobin level is less than 110 grams per litre, adjusted for altitude.

**Figure 18: Comparing Maternal Mortality Ratio (per 100000 live births) based on World Bank Classification of Countries by Income Level**

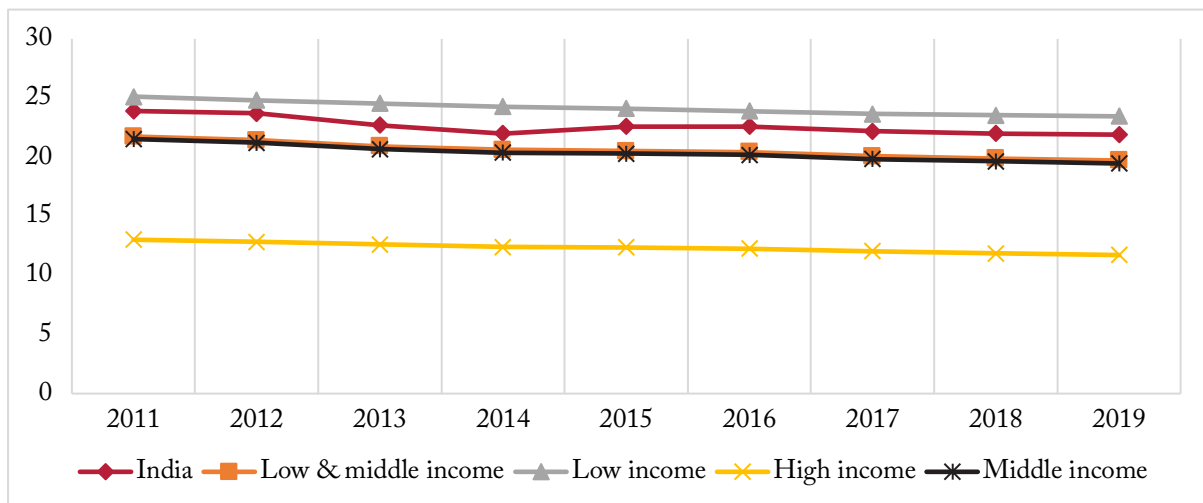


Source: Health Nutrition and Population Statistics, World Bank, 2021

### Maternal Mortality Ratio

According to Health Nutrition and Population Statistics, maternal mortality ratio is the number of women who die from pregnancy-related causes while pregnant or within 42 days of pregnancy termination per 100,000 live births.

**Figure 19: Comparing Mortality due to Non communicable Disease (between ages 30 and 70) based on World Bank Classification of Countries by Income Level (%)**

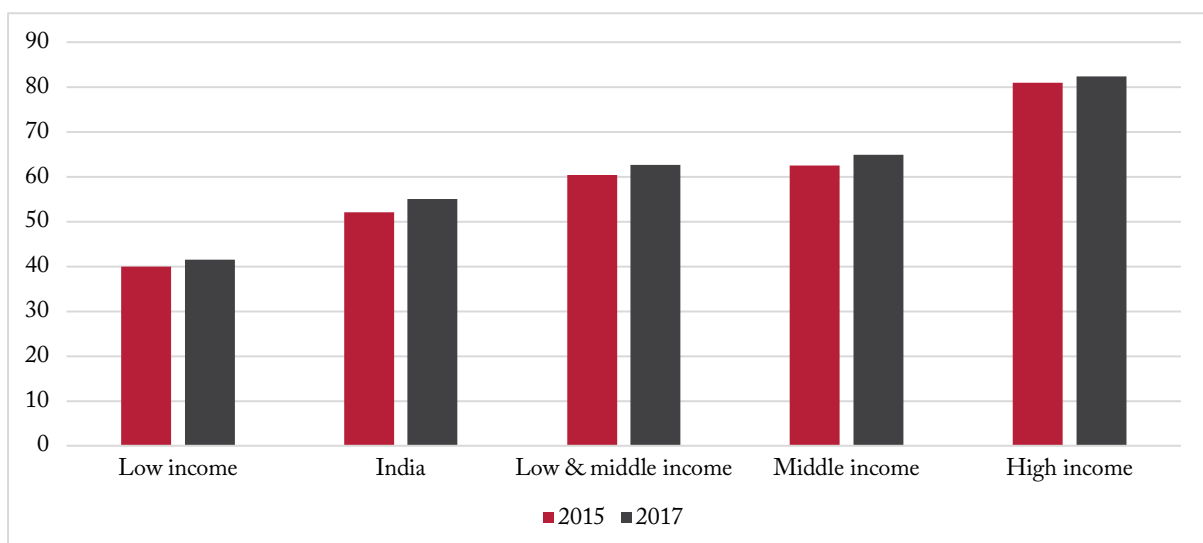


Source: Health Nutrition and Population Statistics, World Bank, 2021

### Mortality from CVD, cancer, diabetes or CRD

According to Health Nutrition and Population Statistics, mortality from CVD, cancer, diabetes or CRD is the % of 30-year-old-people who would die before their 70th birthday from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS). The graph suggest that mortality due to NCD, especially heart disease, cancer, diabetes, and chronic respiratory disease, has been persistently on a higher side as compared to low and middle income countries.

**Figure 20: Comparing Universal Health Coverage Index (0-100) based on World Bank Classification of Countries by Income Level**



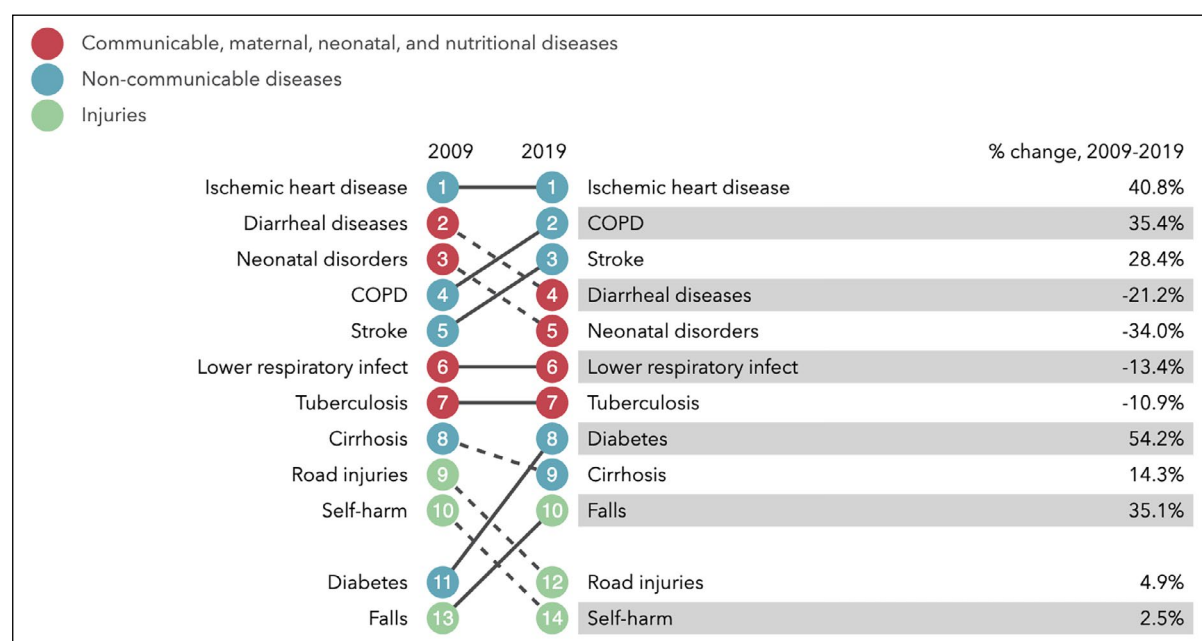
Source: Health Nutrition and Population Statistics, World Bank, 2021



## UHC service coverage index

According to Health Nutrition and Population Statistics, coverage index for essential health services (based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access). It is presented on a scale of 0 to 100. The UHC coverage index of 55 suggest that India is half way mark to ensure healthy lives to its citizen, as Universal Health Coverage (UHC) is about ensuring that all people can access the health services they need – without facing financial hardship – is key to improving the well-being of a country's population. UHC is also an investment in human capital and a foundational driver of inclusive and sustainable economic growth and development. UHC is a target associated with the Sustainable Development Goals (target 3.8), and it relates directly to Goal 3 (Ensure healthy lives and promote well-being for all at all ages) and to Goal 1 (End poverty in all its forms everywhere).

**Figure 21: Non communicable disease among the top 10 reasons of deaths**



Source: Institute of Health Metrics and Evaluation



Table 4: Urban Rural differentials in Key Sustainable Development Goals Indicators

Sustainable Development Goals Indicators																				
State	Hunger				Nutrition								Ensure Healthy Lives and Promote Wellbeing							
	Infant Mortality Rate		Under five Mortality Rate		Children under five who are severely wasted (SAM) (%)		Children age 6-59 months who are anaemic (<11 g/dl) (%)		All women age 15-49 years who are anaemic (%)		Men age 15-49 years who are anaemic (<13 g/dl) (%)		Women Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level (%)		Men Blood sugar level - high or very high (>140 mg/dl) or taking medicine to control blood sugar level (%)		Women Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)		Men Elevated blood pressure (Systolic ≥140 mm of Hg and/or Diastolic ≥90 mm of Hg) or taking medicine to control blood pressure (%)	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Andhra Pradesh	29.8	30.4	33.7	35.8	6.4	5.8	58.7	65	57.8	59.3	13.8	17.3	23.2	17.9	24.9	20.5	27.5	24.3	32.2	27.6
Telangana	22	29.3	24.7	32.4	9.2	8.2	64.7	72.8	55.2	58.9	13.2	16.5	18.4	13	21.4	16.6	29.1	24.7	36.8	28.9
Assam	22.7	33.1	33	39.9	8	9.2	66.4	68.6	65.2	66	27.6	37.5	16.6	12.1	20.4	15.2	22.5	18.5	23.8	19.6
Bihar	43.1	47.3	50	57.4	7.7	9	67.9	69.7	65.6	63.1	27.1	30.1	16.3	12	20.3	15.4	16.6	15.8	19.5	18.1
Goa	5.6	NA	10.6	NA	7.5	NA	53.2	NA	39	NA	12	NA	20.8	NA	24.1	NA	27.5	NA	26.8	NA
Gujarat	24.1	35.5	26.7	44.2	9.7	11.1	77.6	81.2	61.3	67.6	23.3	29.1	17.6	14.6	17.8	16.2	21.1	20.1	20.3	20.3
Himachal Pradesh	NA	27.1	NA	30.9	6.3	7	58.2	55	51	53.3	8.6	20.3	15.4	13.7	18.3	14.2	22.1	22.2	29.1	23.6
Jammu and Kashmir	14.7	16.7	15.7	19.4	9.6	9.7	70.1	73.5	61.4	67.5	28	40	9.2	8.6	8.1	8	21.2	19.6	20.1	18.5
Karnataka	21.4	27.8	24.5	32.5	8.6	8.3	62.8	67.1	43.9	50.3	17.3	21.2	16.2	12.6	18	14.1	27.4	23.4	29.2	25.5
Kerala	3.5	5.2	3.9	6.4	7	4.6	38.9	39.8	37	35.8	19.5	16.4	24.8	24.8	27.4	26.7	30.7	31	32.6	32.9
Maharashtra	22.6	23.7	28.2	27.9	9.5	11.9	66.3	70.7	52	56.1	17.4	25.4	14.6	10.7	15.3	12.4	23.8	22.6	25.7	23.5
Manipur	12.2	31.1	17.1	36.2	2.6	3.8	44	42.2	30.5	28.8	5.3	6.5	16	12.1	19.2	14.7	26	21.1	37.5	30.4
Meghalaya	23.4	33.6	23.4	42.6	4.6	4.7	38.8	46	51.8	54.3	16.1	27.4	10.3	9.3	16	13.4	24.6	17.1	28.5	19.9
Mizoram	20.6	22	21.8	26.2	3.6	6.1	42.8	49.6	30.8	39.9	13.3	18.3	15	12.3	16.4	14.3	21	13.5	28.7	21.1
Nagaland	17	25.8	22.5	36.8	11	6.8	46.4	41.4	27.3	29.8	10.8	9.5	9.3	9.2	13.4	11.9	19.9	23.6	26	30.1
Sikkim	NA	17.8	NA	17.8	6.4	6.7	54.8	57.1	42.4	41.9	15	21	14.6	10.9	16.2	15.5	32.3	35.8	38.6	43.1
Tripura	23.2	41.8	24.4	49	5.2	8	57.3	66.5	66.1	67.6	41.7	34.9	21.1	16.3	21.2	18.5	26.4	18.6	27.3	20.6
West Bengal	21	22.4	23	26.2	7.9	6.9	63	71.3	65.1	74.4	30.9	42.4	19.4	16.5	23.1	20.4	21.5	19.9	22.3	19

Source: National Family Health Survey 2019-20

## Fragmented and Low Level Risk Pooling

As Mentioned, India has a highly fragmented and low level of risk pooling with less than 10 % of the population covered by formal contributory health insurance (Niti, 2019). There are various contributory risk pooling schemes both at national and state level (please see below).

**Table 5: Contributory Risk Pooling Scheme at National and State Level**

Health Insurance	National/ State	Overview
Employees' State Insurance Scheme (ESIS)	National	The ESI Scheme is financed by contributions from employers and employees. The rate of contribution by employer is 4.75% of the wages payable to employees. The employees' contribution is at the rate of 1.75% of the wages payable to an employee. Employees, earning less than Rs. 137/- a day as daily wages, are exempted from payment of their share of contribution. The ESI Scheme applies to factories and other establishment's viz. Road Transport, Hotels, Restaurants, Cinemas, Newspaper, Shops, and Educational/Medical Institutions wherein 10 or more persons are employed.
Central Government Health Scheme (CGHS)	National	Central Government Health Scheme provides comprehensive medical care to the Central Government employees and pensioners enrolled under the scheme. CGHS is unique of its kind due to the large volume of beneficiary base, and open ended generous approach of providing health care.
Railway Employees Liberalized Health Scheme and Retired Employees Liberalized Health Scheme	National (Indian Railways)	RELHS provides comprehensive medical services to both its working and retired employees which is financed by contributions from both employer and employees.
Ex-Servicemen Contributory Health Scheme (ECHS)	National (Armed Forces)	The ECHS Scheme aims to provide allopathic and AYUSH medicare to Ex-servicemen pensioner and their dependents through a network of ECHS Polyclinics, Service medical facilities, Government hospitals, empanelled private hospitals/specified Govt. AYUSH hospitals spread across the country. It is financed by contribution from both retired employees (one time contribution) and government of India.
Arogya Karnataka Scheme	Karnataka	Packages all the existing risk pools like Vajpayee Arogyashree, Yeshaswini Scheme, Rajiv Arogya Bhagya Scheme, Rashtriya Swasthya `Bima Yojana (RSBY) into one
Aarogya Raksha Scheme	Andhra Pradesh	
Chief Minister's Comprehensive Health Insurance Scheme	Tamil Nadu	Introduced in 2009 to provide free treatment at empanelled government and private hospitals to the poorest of the poor/ low income/ unorganized groups

Biju Swasthya Kalyan Yojana	Odisha	Aims to provide universal health coverage by expanding eligibility of the scheme beyond the vulnerable BPL section
Deen Dayal Swasthya Seva Yojana	Goa	a. Financed through the state budget b. Aims to provide health insurance coverage for the entire resident population of Goa
Mahatma Jyotiba Phule Jan Arogya Yojana	Maharashtra	Improve access of BPL and APL families to medical care involving hospitalization, and consultations through a network of empanelled hospitals
Mukhya Mantri Chikitsa Sahayata Kosh	Bihar	Subsidized healthcare for treating serious illnesses requiring hospitalization
Mukhya Mantri MuftIlaaj Yojana	Haryana	Aims to be a comprehensive scheme to provide free treatment to all citizens
Mukhya Mantri Amrutum Yojana	Gujarat	Originally launched to cater to BPL people, it has recently been modified include lowermiddle-class families
Ayushman Bharat–Sarbat Sehat Bima Yojana	Punjab	Flagship state health insurance scheme for cashless and paperless treatment is at government and empanelled private hospitals. Cost of the premium is paid by central and state government on a 60:40 basis
Ayushman Bharat Nirmayam Yojana	Madhya Pradesh	Extension of the Ayushman Bharat scheme launched by Central Government in 2018
Swasthya Sathi Scheme	West Bengal	Established to achieve universal health protection for every resident of the State
Assam Arogya Nidhi	Assam	Fully subsidized health assistance scheme that also provides financial protection from natural and man-made disasters
Chief Minister of Health Insurance Scheme	Jharkhand	
Chief Ministergi Hakshelgi Tengbang (CMHT)	Manipur	The scheme aims to provide cashless secondary and tertiary care on Hospitalization at empanelled Network Hospitals. Oriented only towards the BPL category
Mizoram State Health Care Scheme	Mizoram	Linked with the RSBY and envisaged to provide health insurance coverage to the entire population of Mizoram including BPL and APL families
Chief Minister Arogya Arunachal Yojana	Arunachal Pradesh	Cashless coverage for secondary and tertiary level of medical treatment along with follow-up care benefits
Megha Health Insurance Scheme	Meghalaya	Complementary to PMJAY and utilises the framework of RSBY. Promoted to provide financial aid to all the citizens of the state at the time hospitalization and reduce the out-of-pocket expenses
HIMCARE	Himachal Pradesh	HIMCARE scheme is an extension of PM-JAY with identical policy guidelines
Bhamashah Swasthya Bima Yojana	Rajasthan	Objective of providing cashless treatment at government and empanelled private hospitals to reduce OOP expenditure

Arogyashree Scheme	Telangana	Provides financial protection to families from medical expenses incurred during hospitalisation and treatment of serious illnesses
Atal Ayushman Uttarakhand Yojana	Uttarakhand	Aims to enhance and extend the coverage provided by PM-JAY to provide free treatment of common and serious illnesses at empanelled healthcare institutions
Dr. Khubchand Baghel Swasthya Sahayata Yojana (DKBSSY)	Chhattisgarh	A state-specific extension of benefits provided under PM-JAY
Karuna Arogya Suraksha Paddhati Yojana (KASPY) Comprehensive Health Insurance Scheme (CHIS)	Kerala	
Mukhya Mantri Jan Arogya Abhiyan	Uttar Pradesh	Extension of PM-JAY with identical policy guidelines

Sources: *Health System for a New India: Building Blocks*, NITI Aayog Report, 2019

*Health Insurance for India's Missing Middle*, NITI Aayog Report, 2020

<https://www.india.gov.in/>, accessed on 24 November, 2021

<https://cghs.gov.in/>, accessed on 24 November, 2021

<https://indianexpress.com/article/india/railways-mulls-health-insurance-cover-for-employees-6561683/>, accessed on 24 November, 2021

<https://www.desw.gov.in/>, accessed on 24 November, 2021

**Table 6: Government Funded Health Programmes**

<b>Name of the Umbrella Programme/Mission</b>	<b>Initiatives under Umbrella Programme/Mission</b>	<b>Schemes Linked to Initiatives</b>
National Health Mission	Comprehensive Primary Health Care (CPHC) Through Ayushman Bharat	Health And Wellness Centres
	National Ambulance Services (NAS)	
	National Mobile Medical Units (NMMU)	
	Free Drugs Service Initiative	
	Free Diagnostics Service Initiative	
	Biomedical Equipment Maintenance And Management Programme (BMMP)	
	24 X 7 Services And First Referral Facilities	
	Mera Aspataal	
	Swachh Swasth Sarvatra	
	Kayakalp Award Scheme	
	The Prime Minister's National Dialysis Programme (Pmndp)	
	Mother And Child Tracking Facilitation Centre (MCTFC)	
	Maternal & Adolescent Health Care Programs	Janani Suraksha Yojana (JSY), Janani Shishu Suraksha Karyakaram (JSSK), Pradhan Mantri Surakshit Matritva Abhiyan(PMSMA), Surakshit Matritva Aashwasan (SUMAN), Laqshya Programme, Midwifery Initiative, Anaemia Mukh Bharat Programme, Rashtriya Kishor Swasthya Karyakram (RKSK), Universal Immunization Programme (UIP)
	Family Planning Program	Mission Parivar Vikas, Central Medical Services Society (CMSS)
	Disease Control Programmes (Services delivered through NHM)	National Vector Borne Disease Control Programme (NVBDCP), National Leprosy Eradication Programme (NLEP), The National Tuberculosis Elimination Programme (NTEP), National Iodine Deficiency Disorder Control Programme (NIDDCP)

Other National Health Programmes		National Programme For Prevention And Control Of Cancer, Diabetes, Cardiovascular Diseases And Stroke (NPCDCS), National Tobacco Control Programme (NTCP), National Mental Health Programme (NMHP), National Programme for Control of Blindness and Visual Impairment (NPCB&VI), National Programme for Prevention and Control of Deafness (NPPCD), National Programme for Prevention and Control of Fluorosis (NPPCF), National Programme for Health Care of the Elderly (NPHCE), National Oral Health Programme (NOHP), National Programme for Prevention and Management of Trauma and Burn Injuries (NPPMT & BI), National Organ Transplant Programme (NOTP) Transplantation of Human Organs and Tissues Act, 1994, National Viral Hepatitis Control Programme
National Aids Control Organisation (NACO)		Targeted Community Led Interventions, Opioid Substitution Therapy (OST) Programme for IDUs, Link Worker Scheme (LWS) - Reaching-out to Rural Populations, Employer Led Model (ELM), TB-HIV case linkage activities in TI Programme, Intervention in Prisons & Other Closed Settings, District AIDS Prevention and Control Units (DAPCU)

Source: <https://main.mohfw.gov.in/sites/default/files/Annual%20Report%202020-21%20English.pdf>

**Table 7: List of Research, Training, and Regulatory Institutions**

	Name of the Institutions
Training Institutions	National Institute of Health and Family Welfare, New Delhi
	National Institute of Public Health Training and Research (erstwhile Family Welfare Training & Research Centre), Mumbai
	Gandhigram Institute of Rural Health and Family Welfare Trust (GIRHFWT), Tamil Nadu
CENTRAL MEDICAL INSTITUTIONS	AIIMS, New Delhi
	Post Graduate Institute of Medical Education and Research (PGIMER), Chandigarh
	Jawaharlal Institute of Post Graduate Medical Education & Research (JIPMER), Puducherry
	Vardhman Mahavir Medical College (VMMC) & Safdarjung Hospital, New Delhi
	Atal Bihari Post Graduate Institute of Medical Sciences & Dr. Ram Manohar Lohia Hospital & New Delhi
	Lady Harding Medical College and Associated Hospitals
	National Institute of Mental Health & Neuro-Sciences, Bengaluru, (NIMHANS)
	Central Institute of Psychiatry (CIP), Ranchi
OTHER HEALTH INSTITUTIONS	All India Institute of Physical Medicine and Rehabilitation (AIIPMR), Mumbai
	All India Institute of Speech And Hearing (AIISH), Mysuru
	All India Institute of Hygiene & Public Health (AIIPH&PH), Kolkata
	Central Leprosy Teaching and Research Institute (CLTRI), Chengalpattu
	Regional Leprosy Training and Research Institute (RLT&RI), Raipur
	Regional Leprosy Training and Research Institute (RLT&RI), Aska
	Regional Leprosy Training and Research Institute (RLT&RI), Gouripur, (West Bengal)
	Vallabhbhai Patel Chest Institute (VPCI), New Delhi
	National Institute of TB and Respiratory Diseases (NITRD), New Delhi
	National Tuberculosis Institute (NTI), Bengaluru
	New Delhi Tuberculosis (NDTB) Centre
	National Centre for Disease Control (NCDC)
	Central Research Institute, (CRI), Kasauli
	National Institute of Biologicals (NIB), Noida
	BCG Vaccine Laboratory, Guindy
	Pasteur Institute of India (PII), Coonoor
	Institute of Serology, Kolkata
	International Institute for Population Sciences (IIPS), Mumbai
	Mahatma Gandhi Institute of Medical Sciences, (MGIMS), Sevagram, Maharashtra
	Central Bureau of Health Intelligence (CBHI)
	Central Health Education Bureau (CHEB)
	Regional Offices of the Health and Family Welfare, New Delhi
	National Medical Library (NML), New Delhi
	Rural Health Training Centre (RHTC), Najafgarh, New Delhi
	HLL Lifecare Limited (HLL)



Medical Education Policy Institutes	Medical Council of India
	National Medical Commission (NMC)
	National Board of Examinations (NBE)
	Pharmacy Council of India (PCI)
	Dental Council of India
	Indian Nursing Council
	National Academy of Medical Sciences (India) (NAMS)
Regulatory Institutions	Food Safety & Standards Authority of India (FSSAI)
	Medical Council of India
	Indian Pharmacopoeia Commission (IPC)
	Pharmacy Council of India (PCI)
	Dental Council of India
	Indian Nursing Council
	Central Drugs Standard Control Organisation (CDSCO)
	National Council for Clinical Establishments

Source: <https://main.mohfw.gov.in/sites/default/files/Annual%20Report%202020-21%20English.pdf>

Independence | Integrity | Impact

**Centre for Social and Economic Progress**

6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi - 110021, India



@CSEP\_Org



@csepresearch



[www.csep.org](http://www.csep.org)