# The *Lancet* Commission on a citizen-centred health system for India

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## Executive summary

India stands at a pivotal moment in its journey towards universal health coverage—a crucial component of the government's Viksit Bharat vision to elevate it to the status of a developed country by 2047, 100 years since its formation as an independent nation. At this juncture, there is unprecedented political will for reform and sustained economic growth, creating a window of opportunity to advance transformative change and for India to leapfrog to a new health-care paradigm: a universal, citizen-centred, and technology-driven system that dissociates affluence from access to high-quality, comprehensive health care. The *Lancet* Commission on a citizen-centred health system for India was established in December, 2020, to identify the reforms needed to realise this vision. Our analyses are rooted in the lived experiences, expectations, and preferences of the people of India and guided by the principle that they enjoy a universal, fundamental, and inalienable Right to Health, and that the government must be accountable for financing and operating the public sector and stewarding both the public and private sectors. To this end, the Commission engaged a diverse spectrum of expertise and drew systematically upon existing and new research to arrive at our recommendations.

This report presents a key shift in the conventional narrative of the barriers to realising universal health coverage (UHC) in India: these are no longer driven by a lack of political will, underfunding, inadequate human resources and physical infrastructure, or low demand for health-care services. Instead, uneven quality of care, inefficiencies in spending, fragmented delivery, inadequate design and implementation of financial protection programmes, and poor governance emerge as key challenges.

Our clarion call is for an integrated, citizen-centred health-care delivery system that is publicly financed and publicly provided as the primary vehicle for UHC, while shaping the private sector to leverage its strengths.

Variations in State and district health systems highlight the importance of decentralised processes in health system design, implementation, and evolution. Recognising this, we present our reforms as options for governments to choose from based on local realities, consultations with civil society and health-care providers, and refinement through continuing evaluation.

### A citizen-centred health system

*Reform action 1: enable meaningful citizen engagement by firmly building the health system upon people's participation*

The existing platforms of local government and civil society collectives must be strengthened with financial investments and capacity strengthening. Citizen participation should include access to adequate and timely information about entitlements, their health system's performance, how and where to seek care, and available recourse when rights are denied. It should also enable citizens to engage in health-promoting behaviours; share care experiences in ways that meaningfully inform priority-setting, governance, and purchasing decisions; and access to robust grievance redressal mechanisms, including a citizen-led complaints ombudsman. The health system must commit to addressing inequities arising from social determinants of health by prioritising the most vulnerable, integrating social services within health-care settings, and implementing regulations and grievance mechanisms against discriminatory practices.

*Reform action 2: implement a citizen-centred health system through financing, purchasing, and service-delivery reforms in the public sector*

The government should increase health spending at the national and State levels, and enhance Central government transfers of funds to States with large deficits and low fiscal capacity. Additional funds for UHC can be mobilised by enhancing tax-based allocations, consolidating fragmented health budgets to improve efficiencies of both existing and new funds, and expanding the Employees State Insurance Scheme (ESIS) to cover the entire formal sector, ultimately merging ESIS funds with tax resources. To enhance accountability, there is a need to implement a comprehensive purchaser–provider split and strategic purchasing by extending the legislative mandate, capacities, and autonomy of the National Health Authority and State Health Agencies, governed by a board representing diverse stakeholders (including citizens' groups), enabled for accountability, transparency, participation, and consensus-building.

The public sector should implement a decentralised, technology-enabled Integrated Delivery System (IDS) built upon the foundation of population-based comprehensive primary health care. The coordinating node of each IDS unit could be a government secondary hospital that

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## Progress and challenges on the road to universal health coverage

### Recognising achievements while confronting inequities and emerging challenges

India has achieved remarkable improvements in life expectancy, maternal and child survival, and the control of infectious diseases. At the same time, progress has been uneven across States and districts, income groups, geographies, marginalised castes, tribes, and genders. Additionally, the rapid rise of non-communicable diseases accompanying population ageing, mental health conditions, antimicrobial resistance, and climate change present formidable health system challenges.

### Expanding access while strengthening quality

Large-scale government initiatives, such as the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), Ayushman Arogya Mandirs, the Ayushman Bharat Digital Mission, the e-Sanjeevani telemedicine platform, deployment of multiple cadres of medical and allied health professionals, and the establishment of new tertiary hospitals and medical colleges across the country, together with a vibrant private sector, have expanded coverage and are reshaping the delivery of care. India has achieved self-sufficiency in essential medicines and diagnostics through both public and private sector manufacturing and delivery, while nurturing a growing domestic biotech and medical technology industry. Yet, uneven care quality limits the value of expanded access and has resulted in low-value care. The conceptualisation and implementation of comprehensive primary health care have fallen short of meeting people's needs. Without care coordination, citizens are left to fend for themselves and obtain discontinuous care of uncertain quality from a myriad of providers, often at expensive hospitals rather than primary health-care facilities, undermining continuity, equity, and efficiency.

### Increasing spending bolstered by the need for greater efficiency

Government spending on health has risen in absolute terms and is increasing in several States, with particularly strong growth during the COVID-19 pandemic. However, health expenditure, as a share of gross domestic product, remains low and has not grown in line with India's overall economic growth. Fragmented budgets, their suboptimal allocation, inefficient utilisation, and rigid financing mechanisms have constrained system responsiveness and weakened institutional capacities, especially at decentralised levels. The predominance of line-item budgets (in the public sector) and fee-for-service (in the private sector) as payment methods has limited the health system's flexibility to tailor services to population needs and promote rational care.

### Enhancing financial protection

Financial risk protection has improved over the past decade, with expansions in affordable care and insurance coverage through the AB-PMJAY (covering 600 million people) and its State-level counterparts. However, insurance schemes are focused on hospitalisation, overlooking outpatient and chronic care. Consequently, out-of-pocket expenditure, driven by the costs of medication and diagnostics, remains a leading cause of financial hardship, especially for lower-income groups.

### Building on citizen engagement and community action for health

India has pioneered models of community engagement. The National Health Mission (2013) and the National Health Policy (2017) have emphasised people's participation in universal health coverage through ongoing initiatives such as the Accredited Social Health Activist programme and Community Action for Health. The success of these initiatives can be reinforced by continued efforts to address information asymmetries and power imbalances and enhance accountability through citizens' engagement in governing health.

### Effecting better regulations and responsive governance

The government's digital e-governance tools and digital public infrastructure offer opportunities to strengthen accountability and trust, but require scaling-up and alignment with citizen priorities. Despite an array of health regulations covering payers, providers, and patients' rights, limited State capacity for oversight and enforcement, regulatory capture, and misaligned incentives have reduced their effectiveness. Shortfalls in timely and reliable health system data and weak health research networks are barriers to responsive governance.

strategically purchases primary health-care services from a network of affiliated public sector primary health-care providers throughout the hospital's catchment area and establishes referral linkages with tertiary hospitals and specialty services, including the private and not-for-profit sector. Community-based multidisciplinary teams with technology aids would be responsible for a defined catchment population enrolled with unique digital patient identification numbers, offering comprehensive, continuing, outreach-focused primary health care. Once primary health care achieves adequate quality, it will serve as a gatekeeper for higher levels of care. Digital technologies would support early diagnosis, clinical decision-making, referrals, and care coordination by health-care providers across the IDS. To motivate providers to deliver high-quality care, payment mechanisms would transition from current line-item budgets or case-based payments towards global budgets for secondary hospitals and capitation-based blended payments for primary health-care providers, supplemented with facility-based, team-based, or performance-based incentives.

#### *Reform action 3: engage the private sector to align with UHC goals*

India's private sector accounts for the majority of outpatient consultations and a substantial share of inpatient care, and

the sector must be leveraged as a crucial partner in the country's UHC journey. Integrated care principles, along with the use of incentives, regulation, and competition, are essential for ensuring high-quality, cost-effective, and non-inflationary private sector care. This approach should prioritise disease prevention and continuing care for chronic conditions to optimise health outcomes, facilitate a network of providers and care coordinators, and transition provider payments from fee-for-service to a blended model incorporating capitation, global budgets, and value-based payments. Accompanied by necessary regulatory mechanisms to ensure patient rights, accountability, provider payment reforms, and price setting, voluntary health insurance should be used to pool and prepay for private sector services and require insurance products to cover all aspects of health care, including outpatient care, medicines, and diagnostics. To facilitate this, regulatory hurdles in insurance legislation that require large amounts of capital and prevent insurers and providers from incorporating integrated care principles would need to be addressed.

*Reform action 4: invest in and scale up diverse technologies to catalyse all the reforms needed for UHC*

This Commission embraces the convergence of advances in biotechnology, artificial intelligence, and digital public infrastructure—exemplified by the country's salutary capabilities to manufacture vaccines for the world and its digital platform for tracking and containing the pandemic—to offer a historic opportunity to realise UHC, relying almost entirely on domestic resources. The deployment of digital technologies can catalyse many of the reforms proposed by the Commission, for example to facilitate the integration of diverse, registered health-care providers with multiple types of payers and patients, facilitating health data exchange, structured care coordination, and communication among them. The rapid and widespread deployment of technologies, such as artificial intelligence and genomics, as well as capital-efficient technology innovations, can drive the health system towards point-of-need delivery of advanced diagnostics, preventive care, and citizen-centred care. Digital platforms could construct a loosely coupled version of the IDS, or, in the case of the voluntary health insurance option, the insurer could pay their empanelled providers registered on the integration platform based on its own criteria.

*Reform action 5: enable transparent and accountable governance of the entire health system through decentralisation and strengthened regulatory capacities*

To empower State, district, and local government institutions to design and implement responsive reforms, there should be clear role definitions, enhanced financial and management autonomy, and strengthened capacities for local officials. Improving fund flow efficiency through digital tools, simplifying financial procedures, and reducing bureaucratic hurdles will enhance fund utilisation. Moving from line-item budgets to global budgets would support financial autonomy and motivate providers to deliver high-quality, citizen-centred care and, accompanied by reporting and evaluation criteria focused on health outcomes instead of inputs and outputs, would shift the culture of accounting to one of accountability and trust. Governance reforms in drug quality and procurement, provider education, and regulatory institutions are needed to ensure ethical and competent care standards, with decentralised enforcement authorities and independent regulators.

*Reform action 6: foster a learning health system by embedding reflexivity, participatory approaches, and leadership that champions continuous learning and improvement*

The Commission recommends that the proposed reforms must be supported by a Learning Health System (LHS), with the goal of integrating science, informatics, incentives, and a culture of continuous learning and innovation. By creating platforms for critical reflection and collective exchange, the health system can shift away from a compliance-driven mindset and embrace a culture of collaboration and trust, in which both successes and failures are openly discussed to foster a spirit of

### Guiding principles of this Commission

Several guiding principles underscore our reimagination of the health system:

- A transition from a facility-centric, reactive, and fragmented delivery system focused on specific diseases towards a comprehensive, coordinated, citizen-centred health system
- A transition from citizens being passive recipients of services to becoming active agents with rights who are engaged in the health system
- A transition from focusing merely on physical access to health-care services to ensuring high-quality health care that treats everybody with respect and dignity
- A transition from centralised governance to decentralised, citizen-centric governance informed by robust, comprehensive, and timely data that report local population-level outcomes
- A transition from providing weight to only professional qualifications to emphasising provider competencies, values, and motivations, and empowering frontline workers and practitioners of Indian systems of medicine (eg, Ayurveda, Yoga, Unani, Siddha, and Homeopathy)
- To responsibly and ethically leverage the power of innovative technology to support the reimagined health system and deliver citizen-centred care
- To explicitly acknowledge rights and health equity as a core value of universal health coverage and the reduction of inequities as a measure of progress across universal health coverage goals

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continuous improvement. For an LHS to be truly responsive, organisations must be designed to promote decentralised decision-making, which will require adequate funding to support researchers and domain experts, knowledge-sharing platforms, and collaborative networks involving diverse local stakeholders.

### The way forward: a political and transformational agenda

Many of our proposed reforms are already part of existing Central or State government initiatives, and their inclusion in this Commission serves as an endorsement of these policies. However, some of our reform actions are novel, and we recognise that vested interests, fiscal constraints, implementation capacities, and ideological divides have the potential to slow or prevent progress on these actions. The Commission, therefore, emphasises that health system reforms are not merely technical—they are profoundly political. Their success will depend on strong leadership that aligns diverse interests, addresses resistance from powerful stakeholders, and fosters solidarity across sectors and political parties. Our recommendations must be carried forward through extensive consultations with civil society and other stakeholders across the country. Such dialogue is essential for assessing feasibility, ensuring acceptability, mitigating risks, and generating sustained political commitment.

By situating our reforms within the long-term aspiration of Viksit Bharat, India can build on its achievements while pursuing bold transformations. Encouragingly, public confidence in the government has strengthened in recent years, creating an important foundation of trust to advance health reforms. Yet, progress will also require confronting the ongoing challenges posed by social determinants of health, which, if left unaddressed, could undermine even the most well designed reforms. By strengthening citizen engagement, building integrated public delivery systems, aligning the private sector, harnessing technology, empowering decentralised governance, and fostering a culture of continuous learning, India can move decisively towards universal, high-quality, and sustainable health care. The Commission's call is clear: invest wisely, innovate boldly, and align reforms around citizens' Right to Health. With courageous political leadership and active citizen participation, India can ensure that its path to becoming a developed country is anchored in a resilient, inclusive, and citizen-centred health system.

## Introduction

With approximately 1·4 billion people, India is home to almost a fifth (18%) of the global population.[1] The health of the people of India, therefore, has substantial implications not just for its citizens but also for all global health indicators. Although still categorised as a lower-middle-income country, India's sustained economic growth since the 1990s, large working-age population, rapid increases in educational attainment, extensive welfare programmes with subsidised food distribution reaching over 960 million beneficiaries,[2] over 415 million people moving out of poverty between 2005–06 and 2019–21,[3] its prowess in a range of technologies, and its global leadership in digital innovation, underscore its opportunities for achieving the Sustainable Development Goals (SDGs). However, India continues to grapple with socioeconomic disparities such as wealth concentration, in which the top 1% owned around 40% of total wealth in 2022–23 compared with the bottom 50% owning 6–6·4% of total wealth,[4] along with entrenched gender and caste inequities.[5] The informal economy still employs over 90% of the workforce,[6] although it is progressively benefitting from digital financial inclusion, labour code reforms, and large-scale skilling initiatives. Internal migration remains substantial with over 450 million internal migrants.[7]

To realise its vision of Viksit Bharat (ie, becoming a developed country by 2047, marking 100 years since its independence), India needs to harness its opportunities and address the persisting and emerging challenges by investing in its citizens. A core area of this investment is towards the goal of universal health coverage (UHC; a target of SDG3) to ensure that all people lead healthy lives, experience wellbeing across the life course, and have access to the full range of the high-quality health services they need without facing financial hardship.[8]

The *Lancet* Commission on a citizen-centred health system for India (hereafter, the Commission) was set up in December, 2020, amid the devastating COVID-19 pandemic, to identify health system reforms needed to advance UHC in India. Its goal was to propose the design of a "health system that offers comprehensive, accountable, accessible, inclusive, and affordable high-quality healthcare to all citizens in India".[9] The Commission takes a comprehensive view of UHC. Contrary to some prevailing conceptualisations of UHC that limits it to insurance coverage or access to hospital services, UHC includes not only clinical treatment but also health promotion, prevention, rehabilitation, and long-term care; financial protection encompassing all health-care-related costs; entitlement to access health care without financial hardship; and creating a health system that is equitable and accessible by all sections of the population. We believe that citizens have a Right to Health and that the government must be responsible and accountable to its citizens for building an accessible and equitable health system suited to sustainably providing UHC, and that an aware, engaged, and empowered citizenry must participate in the planning, implementation, and monitoring of health services and outcomes. In order for meaningful progress to be made towards UHC, it is imperative that health system reforms take into account the perspectives of various stakeholders, particularly the people of India. The Commission refers

to all people who reside in India as their primary home as citizens, and our analyses of the health system and design of reform options are rooted in the lived experiences, expectations, and preferences of these citizens. Ultimately, we framed this Commission as offering a pathway towards a citizen-centred health system for India.

The Commission recognises the intrinsic importance of social determinants, such as income, employment, gender inequality, education, food security, social inclusion, and the built environment, as crucial in influencing the burden of disease in the population, disparities in health outcomes, and access to health care. Although our focus has been singularly on the architecture of the health system, we recognise that health systems need to become transformative as part of broader socioeconomic reforms that are inclusive, equitable, and respectful of the world's ecological barriers,[10] and acknowledge that the health system is a social institution, emerging and evolving from a given society and its inherent social relationships and compacts.[9] Thus, health system reforms must be grounded in the reality of a given society's power distribution and institutions to ensure that health

### *Panel 1:* Data and methods used by the Commission

**Research conducted by the Commission**

- Theory of change workshops: a series of workshops were conducted to develop workstream-specific theories of change, which were followed by two cross-Commission workshops to develop an overarching theory of change to achieve universal health coverage. In total, seven workshops with 77 participants were conducted between April, 2021, and April, 2022.[11]
- Evidence synthesis: evidence syntheses and multistage scoping reviews were conducted to address specific research questions identified by the workstreams. The most recent list of published evidence reviews can be found on the *Lancet* Citizen's Commission website.
- Narrative review of reviews and reports: the Commission has actively sourced reviews and reports published since 2000 addressing issues relevant to its scope. The resources in the public domain are posted on the *Lancet* Citizen's Commission website.
- Policy actors study: 38 key informants with diverse expertise and extensive experience with universal health coverage (UHC) in India participated in semistructured interviews to understand their views on the conceptualisations of UHC, the main barriers to realising UHC, and policy strategies to address these barriers.[12]
- Derivation of a new index to estimate district-level UHC performance ($UHC_d$): using data from recent national population health surveys and administrative programme data in India, we computed a novel $UHC_d$ index for 687 of 707 districts from the geometric means of 24 indicators in five tracer domains: reproductive, maternal, newborn, and child health; infectious diseases; non-communicable diseases; service capacity and access; and financial risk protection. We use this index to examine the variations in realising UHC across districts and the relationship with multidimensional poverty.[13]
- Citizens' Survey: the Commission conducted a population-based survey from November, 2022, to April, 2023, from a representative sample of 50 000 households in India from 125 districts across 29 States. Multistage random sampling was done with districts as primary sampling units; these units were randomly selected from each tertile of the $UHC_d$ index. Villages and wards were secondary sampling units with ten households selected randomly using sampling intervals (with one respondent per household selected using the Kish grid). The survey asked each household respondent about their experiences, preferences, and expectations of the health-care system.[14] For the analysis, both national averages and subgroup analyses are presented. The subgroup analysis is based on $UHC_d$ index terciles (high, medium, and low).[13]
- District case studies: the study was conducted from January, 2023, to July, 2023, in six districts across India, purposively sampled to represent high-performing and low-performing districts (based on $UHC_d$). The research used a mix of secondary data analysis and primary qualitative data. The study conducted 153 interviews and 42 focused group discussions spread among citizens, community actors, frontline workers, health-care providers (including informal providers), and administrators.
- Case studies related to the regulatory and judicial landscape of the Indian health system: C-HELP (an Indian institution focused on law and health policy) was commissioned to publish four case studies on the application of the Right to Health in relation to UHC; the contours of judicial intervention in areas related to health; the implementation of the Right to Health through laws and policies in India; and the legal–ethical frameworks on the deployment of digital technologies in the context of UHC.
- Case studies related to political preferences: three case studies were produced covering managed competition experiences in Germany, Israel, the Netherlands, and Colombia to understand the lessons learnt as relevant to India's health-care system; political motivation as a key driver of UHC in nine countries to understand how political incentives can be shaped in a country such as India; and case studies of five Indian States (Rajasthan, Tamil Nadu, Jharkhand, Bihar, and Andhra Pradesh) to understand the nature of political incentives and how they can be shaped so that they can motivate leaders to prioritise health (appendix p 1).

(Continues on next page)

For more on the ***Lancet* Citizen's Commission** see https://www.citizenshealth.in/publications

See **Online** for appendix

(Panel 1 continued from previous page)

- Two modelling studies: these studies were conducted to estimate the contribution of per-capita, out-of-pocket, and pooled health expenditure for various countries and Indian States on the disability-adjusted life-years lost per 100 000 population (appendix p 1), and to estimate the quantum of funds required across different Indian States to provide UHC to its citizens.[15]

**Other data and research used by the Commission**

- India Health Systems Project (IHSP): led by the Harvard T H Chan School of Public Health (Boston, MA, USA), the project was started in 2017 and is ongoing, as of 2025. The IHSP undertook ten surveys in 2019–20 in the State of Odisha that collected data from a range of stakeholders, including 30 654 individuals, 1485 patients, 554 public and private sector facilities, 1124 individual public and private sector providers, and 1035 private pharmacies for a comprehensive assessment of the strengths and challenges of a State health system.
- India Digital Health Needs Finding study: this study was conducted by St John's Research Institute (Bengaluru, India) and the India Digital Health Network at the Lakshmi Mittal and Family South Asia Institute, Harvard University (Cambridge, MA, USA), in collaboration with the National Health Authority, from July, 2023, to February, 2024. This study involved over 208 hours of interviews with 156 participants from six States and from across the health-care ecosystem, comprising clinical providers, administrators, innovators, investors, and patients and their families.
- People's Voice Survey (PVS), led by the QuEST Network: this survey involves a new instrument that measures health system performance from the population's perspective. The survey was conducted across 14 countries. The PVS in India collected a nationally representative sample of 2004 adults via mobile phone from February, 2023, to April, 2023. All data are weighted to represent the population.
- The Global Listening Project: data collected through structured focus groups, in-depth interviews, and nationally representative surveys from over 70 000 people in 70 countries between July, 2023, and September, 2023 (including 1177 respondents from India), focusing on their experience during COVID-19, their outlook, and their trust and confidence in governments and systems in future emergencies.
- State of Health in Rural India: a survey conducted by the Transform Rural India Foundation and Development Intelligence Unit that aimed to understand health care in rural India. The survey interviewed 6478 households across 21 States in India through mobile telephone interviews from June, 2023 to July, 2023.

See the appendix (p 1) for reference material and related resources.

For more on the **QuEST Network** see https://questnetwork.org/

For more on the **India Health Systems Project (IHSP)** see https://www.hsph.harvard.edu/india-health-systems/

For more on the **Global Listening Project** see https://global-listening.org/societal-preparedness-insights/

For more on the **India Digital Health Needs Finding study** see https://www.idhnet.org/india-digital-health-needs-finding-study/

For more on the **Transform Rural India Foundation** see https://www.trif.in/

For more on the **Development Intelligence Unit** see https://www.diu.one

systems contribute to lessening health inequities. Moreover, equity is a cross-cutting dimension at the heart of all the analyses and reform actions in this Commission.

The Commission's work was organised into five workstreams: citizen engagement, financing, governance, human resources for health, and technology. Each workstream developed a theory of change for its domain, detailing the goals, barriers, and strategies to realise these goals, which subsequently converged into an overarching theory of change,[11] and generated a series of research questions that then informed a series of cross-cutting research activities and collation of a range of other evidence (panel 1; figure 1). The entire process was supported by a network of over 100 Commission fellows, collaborators, and experts for specific research activities. The publication of this report is the culmination of over 4 years of effort to craft a roadmap for UHC in India. The timing of this publication is aligned with the growing political will (from both Central and State governments) for UHC for India's sustainable development and its rising stature in the global community of nations, with its continually increasing economic, human resource, and technological capabilities being essential to realising this ambitious goal. In section 1, we provide a brief history of the evolution of key health policies in India, followed by a brief description of India's health system across the key features of the organisation of the delivery system, health financing, governance, and citizen engagement in section 2. In section 3, we assess India's progress towards its UHC goals. Section 4 analyses the health system-related drivers of India's path to UHC. In section 5, we lay out the health system reforms arising from our analyses.

## Section 1: a brief history of India's key health policies

This section provides a brief and selective history of health policies and programmes initiated by the Indian government and how these have evolved as a result of the country's priorities, as well as global developments (figure 2).

### The post-independence years and the dominance of vertical programmes

The historical trajectory of India's health system reflects both State-led visions and the pragmatic incorporation of mixed service delivery mechanisms over time. The Bhore Committee Report (1946) provided the first comprehensive blueprint, recommending a tax-funded health system with primary health care as its foundation, reflecting the post-World War 2 trend towards welfare state models in newly independent nations.[16] In the decades following independence in 1947, the focus was to build a self-reliant,

modern nation with its own scientific, industrial, and infrastructural capabilities. These found expression in all aspects of nation-building (including the health system), and policy was centred on infrastructure creation (particularly hospitals) and vertical programmes targeting family planning and specific diseases such as malaria and tuberculosis, each with its siloed structures of budgets, facilities, and personnel.[16] Although this approach was shaped by the high burden of infectious diseases, fiscal and health system constraints, and the influence of external funding agencies, the long-term consequence was a hospital-centric, under-resourced, and fragmented health system.[16] India's endorsement of the Alma-Ata Declaration (1978) signalled an explicit commitment to comprehensive primary health care as a State responsibility.[17] The first National Health Policy (1983) further emphasised integration and community engagement.[18] However, in line with the selective primary health-care approach that was promoted internationally for resource-constrained countries, policy priorities continued to favour vertical programmes, as comprehensive primary health care was seen as financially unfeasible.[16]

### Economic liberalisation and the advent of UHC

In the early 1990s, economic liberalisation reforms led to budget constraints to stave off an economic crisis. These reforms also led the Indian government to incentivise private sector investment in health care by offering tax exemptions and subsidies. The result was the rapid expansion of a large private sector in health-care delivery and medical education, and the introduction of commercial health insurance.[16]

In 2000, India became a signatory of the UN Millennium Development Goals, with a further vertical focus on select indicators: maternal and child mortality, HIV/AIDS, malaria, and tuberculosis. The second National Health Policy (2002)[19] aligned with the Millennium Development Goals and recommended statutory regulatory mechanisms and the introduction of health insurance to make secondary and tertiary services in the private sector more affordable.[16,19] This policy also emphasised the importance of decentralising the health system, and the National Reproductive and Child Health Programme adopted several initiatives for localised planning and service delivery and decentralisation of administrative and financial functions from the Central and State governments to district, subdistrict, and community-based institutions.

These milestones ultimately led to the design and launch of the National Rural Health Mission (NRHM) in 2005—the first attempt to integrate numerous vertical programmes and deliver them through a unified system of staff and health facilities.[16] Aimed at achieving the Millennium Development Goals by reinvigorating rural public sector health care, it was guided by principles of decentralisation and community engagement. The objectives of the NRHM were to support States and union territories to ensure universal, equitable, affordable, high-quality, and people-centred health care through effective intersectoral action. The programme included a range of unique and noteworthy initiatives, such as the introduction of the Accredited Social Health Activist (ASHA) programme that trained village-level community health workers, and provided some flexible funds for health facilities, community-based monitoring of services, and community action for health (section 2).[20] The NRHM was instrumental in progress towards the Millennium Development Goals, but many of its reforms were not contextualised to local needs and lacked a comprehensive systems perspective.[21] The programme also emphasised the mainstreaming of Indian systems of medicine (included in Ayurveda, Yoga, Unani, Siddha, and Homeopathy [AYUSH] medicine) but with limited success,[22] although there have been several initiatives towards this in the past decade.[23] The NRHM, and its successors, resulted in more funding for the public sector, especially for primary health care.[24,25] In 2008, a national health insurance scheme, the Rashtriya Swasthya Bima

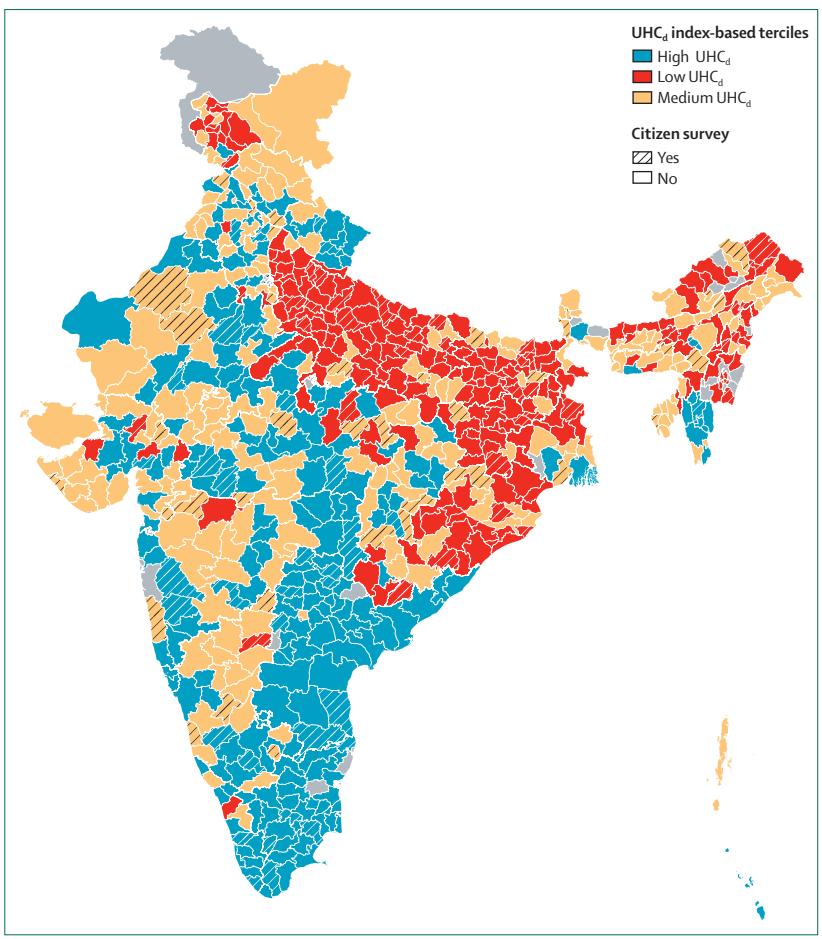



***Figure 1:*** **UHC$_d$ index-based terciles in India and districts sampled in the Citizens' Survey (2023)**
UHC$_d$=universal health coverage performance at the district level.

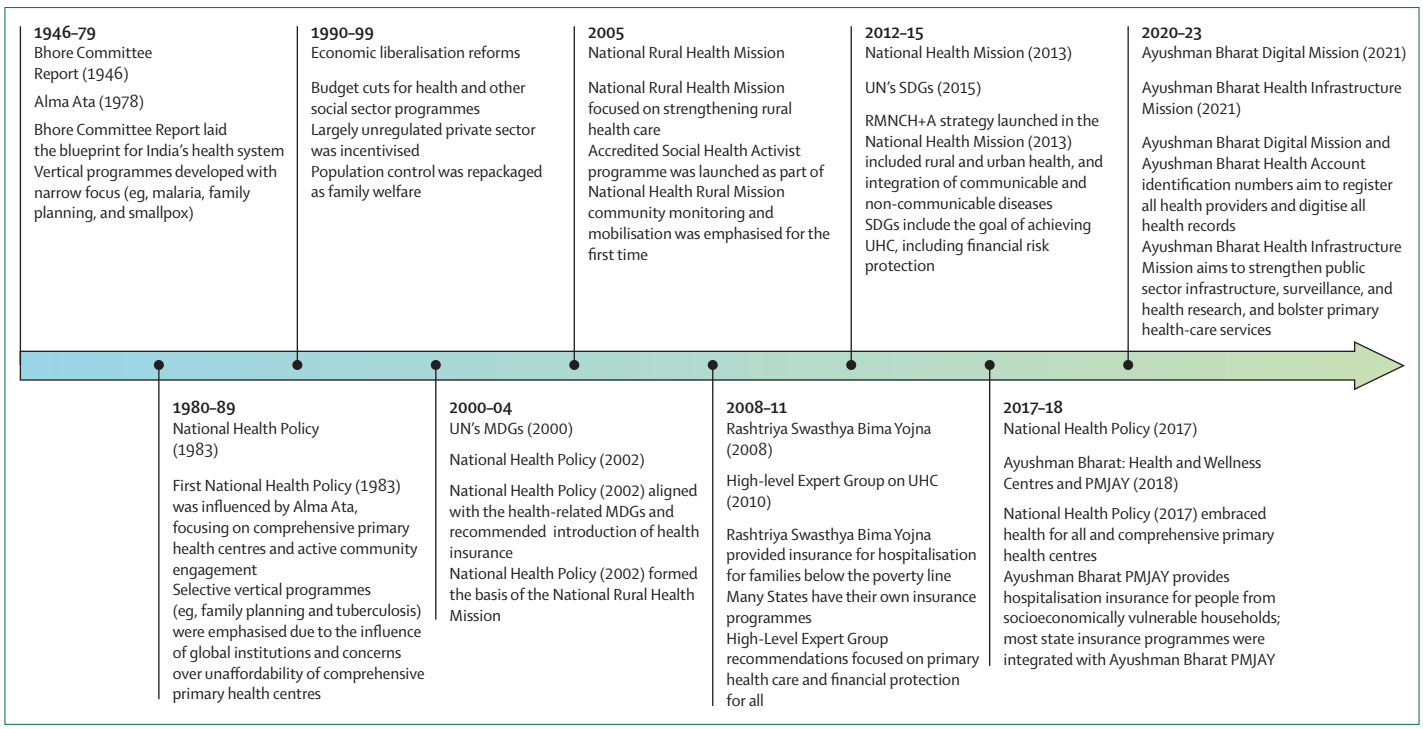



***Figure 2:*** **Major policies and programmes related to health care and UHC in India**
UHC=universal health coverage. SDGs=Sustainable Development Goals. RMNCAH=Reproductive, Maternal, Newborn, Child, and Adolescent Health Strategy of the Ministry of Health & Family Welfare. MDGs=Millenium Development Goals. PMJAY=Pradhan Mantri Jan Arogya Yojana.

Yojana (RSBY), was launched by the Ministry of Labour & Employment to reduce financial hardships by providing insurance for hospitalisation to families living below the poverty threshold, albeit with limited effect.[26]

A High-Level Expert Group, constituted by the government in 2010 (with some members who are also authors of this Commission), aimed to further UHC goals and recommended increasing government health spending, strengthening primary health care, and creating a national health benefits package to ensure essential services for all, with a strong emphasis on equity, quality, and financial protection.[27] Similar recommendations were made by *The Lancet's* Series on UHC in India, which also shared some authors with this Commission.[28] Although several of the proposals of these two initiatives have been adopted in Indian health policies, such as a focus on comprehensive primary health care that became part of the National Health Policy (2017), many challenges, such as insufficient public financing and financial protection, inequitable access and unreliable quality, and ineffective stewardship of the health system, have persisted.

The NRHM was restructured to cover both rural and urban populations and was renamed the National Health Mission (NHM) in 2013, accompanied by a considerable expansion of the programme's health goals in recognition of the growing burden of non-communicable diseases in the country. As of 2025, the NHM has expanded to include several components of health system strengthening, including comprehensive primary health care, free essential drugs and diagnostics, reforms for the health workforce, national ambulance services and mobile medical units, quality assurance initiatives, a telemedicine platform, the national immunisation programme, and vertical disease control programmes. In 2015, India became a signatory to the UN's SDGs, which include the target of achieving UHC. This goal was incorporated into the third National Health Policy (2017), which embraced the ideal of health for all, allocating two-thirds of government funds for health to primary health care, providing explicit recognition of the need to reduce inequity, the deployment of technology, and a commitment to comprehensive rather than selective primary health care.[29] There have been several major policies in the past decade towards these objectives, most prominently the introduction of the Ayushman Bharat with its four pillars: Ayushman Arogya Mandirs (AAMs; previously known as health and wellness centres), the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY; appendix p 4), the Ayushman Bharat Digital Mission (ABDM), and the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM-ABHIM).[30] The AAMs (2018) were launched to substantially broaden the scope of primary health-care services, catalyse referral mechanisms, and deploy a new cadre of primary care providers. At the same time, the tax-financed government

For more on **Ayushman Arogya Mandirs (AAM)** see https://ab-hwc.nhp.gov.in/

For more on the **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)** see https://nha.gov.in/PM-JAY

For more on the **Ayushman Bharat Digital Mission (ABDM)** see https://abdm.gov.in/

scheme, the AB-PMJAY (2018; built on the earlier RSBY), was launched to provide coverage for hospitalisation expenses (in both public and private hospitals) to socioeconomically vulnerable households and older populations; the ABDM (2021) was launched to develop a comprehensive digital health ecosystem through the integration and interoperability of health data across the country; and the PM-ABHIM (2021) was launched to build service capacities of public sector facilities.[31]

Although the history described previously has focused on Central government policies and programmes, it is important to note that, based on Constitutional provisions and India's federal structure, most health-care financing and delivery is governed by States. Due to the historical variations in initial conditions, political will, resources, and technical capacities, the approaches adopted by States have resulted in differences in their performance, including budgetary allocations,[15,32] governance structures, and health outcomes.[33] These differences are reflected in the clustering of high and low UHC performance at the district level ($UHC_d$) in specific States (figure 1).[13] Notably, there have been several health system reforms by States that have informed national policies. For example, Karnataka and Andhra Pradesh had government health insurance programmes that pre-dated the national RSBY and AB-PMJAY, while Chhattisgarh and Jharkhand pioneered community health worker programmes that eventually catalysed the national ASHA programme. State capacity, closely associated with indicators of sustainable development such as poverty, education, and gender, has also been a key variable in the confidence to undertake health reforms and the choice of reforms.

Furthermore, the rapid expansion of private sector health-care facilities following economic liberalisation has profoundly altered the structural composition of service provision. Currently, private sector providers deliver more than two-thirds of outpatient care and around half of inpatient care.[33,34] This structural reality has positioned the public–private mix as a de-facto organising principle of India's health system. Recognising this, the National Health Policy (2017) explicitly endorsed strategic purchasing from the private sector to augment public sector capacity. Thus, from a health systems perspective, as seen in countries around the world, especially in low-income and middle-income countries (LMICs), this mixed health systems model reflects a pragmatic approach in the context of limited state resources, in which the state leverages private sector capacity to expand access.[35–37]

## The COVID-19 response

India's experience with the COVID-19 pandemic revealed both structural vulnerabilities and exceptional adaptive capacity. An early nationwide lockdown in March, 2020, bought crucial time to expand health-care capacity. However, similar to most countries worldwide, the lockdown came at a substantial economic cost—it imperilled the livelihoods of hundreds of millions of rural migrants and lower-income households,[38] and the government incurred considerable expenditures to mitigate economic hardship through free food distribution to over 800 million vulnerable people through the Pradhan Mantri Gareeb Kalyan Yojana, direct benefit transfers, and increases in wages under the public employment guarantee schemes. The devastating delta (B.1.617.2) wave exposed persistent gaps in health system preparedness, resulting in a large number of excess deaths, although estimates vary based on different studies.[39–41] The crisis was compounded by shortages of oxygen and critical care capacity, alongside instances of irrational medical care, exploitative pricing, and malpractice, underscoring weaknesses in regulation and market governance and highlighting asymmetries of information and power.

At the same time, the COVID-19 pandemic also highlighted India's ability to mobilise resources at an unprecedented scale. Community health workers (particularly ASHAs) sustained care delivery in remote areas; civil society networks organised relief efforts, telemedicine services, and oxygen support; and technology adoption accelerated. India was one of only four countries globally—alongside the USA, Russia, and China—to develop and manufacture its own COVID-19 vaccine. Bharat Biotech's domestically developed Covaxin (in collaboration with the Indian Council for Medical Research National Institute of Virology and Serum Institute of India's large-scale production of Covishield) enabled rapid domestic immunisation and global supply under the vaccine diplomacy initiative, Vaccine Maitri, which delivered over 240 million doses to more than 100 countries.[42] Digital public goods such as the COVID Vaccine Intelligence Network (CoWIN), the existing widespread immunisation infrastructure of the NHM, and Digital Infrastructure for Verifiable Open Credentialing enabled India to successfully vaccinate nearly 70% of the population by the end of 2021, with the majority of vaccines administered by the public sector. Supported by the COVID-19 emergency response and health systems preparedness stimulus package, these efforts together strengthened testing, surveillance, and critical care capacity to manage the pandemic.

For more on the **COVID Vaccine Intelligence Network (CoWIN)** see https://www.cowin.gov.in/

The crisis also catalysed structural improvements, including the rapid expansion and deployment of molecular diagnostics, artificial intelligence (AI)-enabled screening, and genome sequencing capacity;[43,44] the mainstreaming of telemedicine, both in the private sector and through the government's eSanjeevani platform, under the National Telemedicine Guidelines; and the approval in 2022 of a cross-ministerial, national One Health Mission under the Prime Minister's Science, Technology, and Innovation Advisory Council to integrate surveillance across human, animal, and environmental health systems.

For more on the **One Health Mission** see https://www.psa.gov.in/oneHealthMission

This brief history illustrates that, since independence, successive governments have expressed a commitment

### Organisation of health-care delivery

**Who provides health care?**
Mixed and pluralistic delivery system: public and private sector providers, formal and informal, and allopathy and Indian systems of medicine (AYUSH)

Most (63%) of all personnel employed in the private sector: 65% of MBBS doctors, 93% of AYUSH physicians, 51% of nurses, and 67% of other providers are in the private sector; majority of providers in urban (73% of MBBS doctors) *vs* rural areas; an estimated 43% of the total stock of health providers are not adequately qualified*

Large proportion of qualified providers have dual practices (ie, work in both public and private sectors)

**Who provides what services?**
Limited clear-role differentiation among providers; all providers across care levels provide ambulatory care and selective primary care; both public and private hospitals provide secondary and tertiary care; preventive care and public health services provided predominantly by public sector

Public sector provides free drugs, but most drugs purchased from private sector pharmacies

Public sector provides limited diagnostics; most diagnostics are purchased from private sector hospitals or standalone laboratories

**How do providers coordinate care?**
No primary care gatekeeping; patients can enter the delivery system at any level, and any type or sector of provider

No formal forward or backward referral linkages across levels of care within public sector or between public and private sectors

Limited care coordination across providers, even within the public sector

**How are providers supported and managed?**
In-service training mandatory for public sector providers, but not for private sector providers

Limited support for clinical decision making; most guidelines designed for allopathic doctors, hospitals, and specialists, and not for primary care or non-physician personnel

Financial incentive programmes to attract MBBS doctors to rural areas; low incentives for community health workers

Limited non-financial incentives to attract and retain personnel

Public sector providers recruited, posted, and managed by civil service rules

Limited autonomy for public sector hospitals to manage financial and human resources

### Health financing

**How are resources mobilised?**
Total health expenditure 3·3% of GDP†:
OOPE: 47·07% (paid by households directly at the point of service); around 56% of OOPE on drugs from the private sector
GHE: 41·4%
Social health insurance premiums: 4%
Voluntary health insurance premiums: 7%
Donor and other funds: 0·5%

National GHE low *vs* economic peer countries; wide variations in State GHEs; some sufficient to meet UHC goals

Majority of tax revenues generated by Central government (*vs* State or local governments); States generate revenues through own taxes, shared central taxes, and receive central grants based on specific revenue-sharing rules determined by Finance Commissions (every 5 years)

**How are resources pooled?**
Three main pools:
- Government pool of tax revenues with various programmatic funds cover all public sector services and specific inpatient care from empanelled private sector hospitals (eg, for AB-PMJAY)
- Employee State Insurance Scheme (a mandatory contributory social health insurance) covers blue-collar workers in the formal sector for services through their own provider network
- Voluntary health insurance pools with public and private sector insurance companies provide indemnity insurance for hospitalisations that households can voluntarily purchase

Government tax revenues pool fragmented into Centrally Sponsored Schemes, State Schemes, and Central Schemes with different lines of funding; Centrally Sponsored Schemes designed by the central government (eg, vertical disease-specific programmes, National Health Mission, and the Ayushman Bharat funded by States [60–90%] and the Central government [10–40%])

Most insurance covers only hospitalisations; outpatient care (including drugs and diagnostics) or preventive care are not usually covered

**How are resources used to purchase health care?**
Primary care, drugs, and diagnostics purchased with government funds from public sector or purchased with OOPE from private sector

Secondary and tertiary care purchased with government funds from public sector or private sector hospitals through OOPE, government, social health, or voluntary insurance

Multiple agencies and programmes purchase drugs for public sector based on essential drug lists, with wide variations across states; passive purchasing by government through line-item budgets and salaries for public sector

Fee-for-service payments for the majority of private sector;
small proportion purchased with case-based payments through government health insurance from empanelled private sector and public sector (as supplement to budgets for public sector); minimal performance-linked payments

Government health insurance payment rates set administratively with a national reference point; Health Technology Assessment India aims to undertake detailed costing and cost-effectiveness analyses to inform prices and control costs

All public sector providers automatically empanelled in government health insurance; private sector hospitals empanelled based on specific criteria, mostly based on physical infrastructure and services offered; 10–15% higher payment rates for hospitals accredited by national board

### Health system governance

**How is the health system governed?**
Health is constitutionally a State Subject; States have primary legislative authority, but laws by the national Parliament can over-ride state legislations

MoHFW operates via two independent departments, each with multiple technical entities; structure replicated in states, with wide variations:
- Department of Health Research
  - Indian Council of Medical Research
    - Multiple technical and administrative entities
- Department of Health & Family Welfare
  - Office of the Directorate General of Health Services
    - Multiple technical and administrative entities

Local governance bodies at village and city or town levels have limited planning, funding, and oversight roles (with wide variations in scope across States) for public sector health services

MoHFW and State departments of health fund, operate, and govern the public sector health-care delivery system (ie, there is no purchaser–provider split)

The National Health Authority was established in 2019 as a purchaser, but only administers AB-PMJAY, and is governed by MoHFW (with some functional autonomy); State Health Agencies governed by State departments of health

**How is health care regulated?**
Health professionals registered and regulated by professional councils, separate for allopathic doctors, AYUSH providers, nurses, and pharmacists

Clinical Establishment Act and Pharmacy Act aimed at regulating clinical quality of health facilities and pharmacies, respectively, but the Clinical Establishments Act is not adopted by all States; National Accreditation Board for Hospitals and National Accreditation Board for Laboratories are voluntary accreditation bodies

Central government regulates the insurance market through the Insurance Regulatory & Development Authority of India

**What data systems are used for governance?**
The Health Management Information System is fragmented and responsibility for health data lies across different ministries and institutions

Public health disease surveillance data on infectious diseases is collected by the Integrated Disease Surveillance Programme and the Integrated Health Information Programme with support from National Centre for Disease Control and state and district surveillance units; other specialised agencies and programmes collect their own surveillance data

Population surveys, such as the National Family Health Survey, District Level Household Survey, and National Sample Survey, as well as vital statistics from the Registrar General and Census Commissioner provide demographic and some epidemiological data

Individual provider databases are not live (ie, records are not regularly updated)

Facility surveys in the public sector measure infrastructure and personnel, and do not give a reliable estimation of service capacities or clinical quality

Recent initiatives (eg, the Ayushman Bharat Digital Mission and the Ayushman Bharat Health Account) set up to collect provider and patient data but are not universal nor mandatory yet

### Citizen engagement

**How have citizens engaged in health care through collective action?**
Long history of civil society action for health and social determinants of health

Citizens' groups (eg, women's groups, worker groups, and NGOs) have mobilised collective action for health, delivered health services, health education, and insurance, and have ignited demand for better health care

NGOs have informed, advised, and monitored health programmes (eg, community engagement through the ASHA Mentoring Group and the Advisory Group on Community Action for the National Health Mission and ASHA programme)

government-mandated formal committees at decentralised levels: Village Health, Sanitation & Nutrition Committees, Jan Arogya Samitis, Mahila Arogya Samitis, and Rogi Kalyan Samitis are aimed at generating awareness of health programmes, representing community interests, and holding health-care providers accountable

**What rights do citizens have for health?**
The Indian Constitution's Fundamental Rights and the Directive Principles of State Policy imply the Right to Health, although this is not stated as an explicit right; states have initiated Right to Health acts

The Universal Declaration of Human Rights (1948) and the Constitution's Fundamental Rights (including the Right to Life) and Directive Principles of State Policy have been interpreted as akin to health rights by Indian courts in specific legal cases

The Supreme Court allows direct petitions through public interest litigation to address violations of patients' rights and malpractices by providers and insurers

No explicitly defined essential benefits package for citizens

**How do citizens participate in the health system?**
Communication by governments through mass media and digital channels disseminate information about health conditions, vaccinations, health programmes, and entitlements

Community health workers, civil society organisations, public dialogues, and decentralised platforms facilitate health-seeking in some contexts

Limited information available to citizens about clinical quality of providers

Patient satisfaction ratings collected for some hospitals but are not disseminated to citizens and do not directly affect provider incentives in the public sector

Regular democratic elections across national, state, and local levels enable citizens to hold elected representatives accountable for health

Structural inequalities and inequities based on socioeconomic, geographical, and cultural identities continue to affect citizens

to principles aligned with UHC and have undertaken a wide spectrum of reforms towards that goal—from disease-control programmes and expansion of tertiary care facilities to the rolling out of large-scale insurance coverage and the strengthening of digital health infrastructure. These efforts have delivered important gains, including improvements in key health outcomes and access to care (sections 3 and 4). However, many of these initiatives have been implemented in silos, often focusing on specific diseases or service levels rather than comprehensive reforms for the whole health system. This partial approach has sometimes limited their cumulative impact on equity, quality, and system resilience. At the same time, these initiatives underscore India's capacity to combine social capital, domestic innovation, large-scale manufacturing, and digital infrastructure to deliver health interventions at a monumental scale, even during crises. The lessons from these experiences (including both their successes and limitations) add impetus to the aspirations, opportunities, and urgency to reimagine India's health system by taking a comprehensive, citizen-centred approach that strengthens primary health care, ensures sustainable financing, and makes effective use of technology to deliver UHC.

## Section 2: the architecture of India's health system

In this section, we describe India's health system along four key features: how health services are delivered, how the system is financed, how it is governed, and how citizens engage with it (figure 3).

### Organisation of the health-care delivery system

India has a mixed and pluralistic health system, in which health-care services are provided in the public and private sectors in different types of health facilities and by a range of providers practising different systems of medicine, such as allopathy, other systems of medicine (ie, AYUSH), and various folk traditions (figure 4). Although there are variations across States, typically the public sector delivery system, funded and run by the Central and State governments, has a network of national medical institutes, State-level medical college hospitals, secondary hospitals at district and subdivisional levels, community health centres at subdistrict or block levels, and primary health centres and subcentres at decentralised levels, several of which have been upgraded to AAMs. Additionally, some government departments and ministries also have their own health-care facilities, notably the Ministry of Labour & Employment's Employee State Insurance Scheme (ESIS), and the hospitals run by the Ministry of Defence and the Ministry of Railways. The allocation of public sector facilities, except for national medical institutes, is population-based, and the allocation of human resources for health is based on norms for each facility, as detailed in the Indian Public Health Standards (IPHS).[45] Based on their level, public sector facilities are required to be staffed by teams of community health workers (ie, ASHAs), auxiliary nurse midwives, community health officers, nurses, pharmacists, laboratory technicians, AYUSH physicians who are graduates of an Indian system of medicine (eg, Ayurveda, Unani, or Siddha), doctors with Bachelor of Medicine, Bachelor of Surgery (MBBS) degrees, and specialists with postgraduate degrees in their respective fields (figure 4). Community health officers—a new cadre introduced through the National Health Policy (2017)—are placed at AAMs and provide promotive, preventive, and basic curative services for a range of services, including non-communicable diseases and mental health. This cadre includes Ayurvedic physicians and nursing graduates who undergo a special bridge training programme. Specialists are physicians that have completed postgraduate degrees after obtaining their MBBS: either Doctor of Medicine/Master of Surgery (MD/MS) degrees acquired at medical colleges or Diplomate of National Board degrees acquired at accredited public and private hospitals. These personnel are hired as government employees or contractors. Public sector facilities have defined roles (figure 4), although their implementation differs substantially across States and districts based on health personnel and infrastructure. All government facilities are meant to provide free medicines based on the essential drugs list and have diagnostic services based on the level of care. Additionally, discounted generic medicines are available at Jan Aushadhi pharmacies that are run by private entrepreneurs or non-government organisations (NGOs), with support from the government.

There are considerable variations in the range of services offered at the various levels of public sector facilities across States and districts. For example, a government-led study found that, in 2021, inter-State variation in district hospitals ranged from one to 408 beds per 100 000 population; the ratio of doctors in line with IPHS norms was highest in Haryana (1·42) and lowest in Uttarakhand (0·48). Although district hospitals in Tamil Nadu fulfilled 16·8% of IPHS-recommended functional specialities, only 1% of these specialities were fulfilled in Assam, Goa, Punjab, Madhya Pradesh, Mizoram, and Uttar Pradesh.[46] Similarly, primary health centres in Bihar and Jharkhand had an up to 70% shortfall in MBBS

*Figure 3:* **An overview of India's health system**
AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. HRH=human resources of health. MBBS= Bachelor of Medicine, Bachelor of Surgery. GDP=gross domestic product. OOPE=out-of-pocket expenditure. GHE=government health expenditure. UHC=universal health coverage. AB-PMJAY=Ayushman Bharat Pradhan Mantri Jan Arogya Yojana. MoHFW=Ministry of Health & Family Welfare. NGO=non-governmental organisation. ASHA=Accredited Social Health Activist. *Data from the National Health Workforce Accounts (2018). †Health financing data on the disaggregation of total health expenditure are based on National Health Accounts (2019–2020).

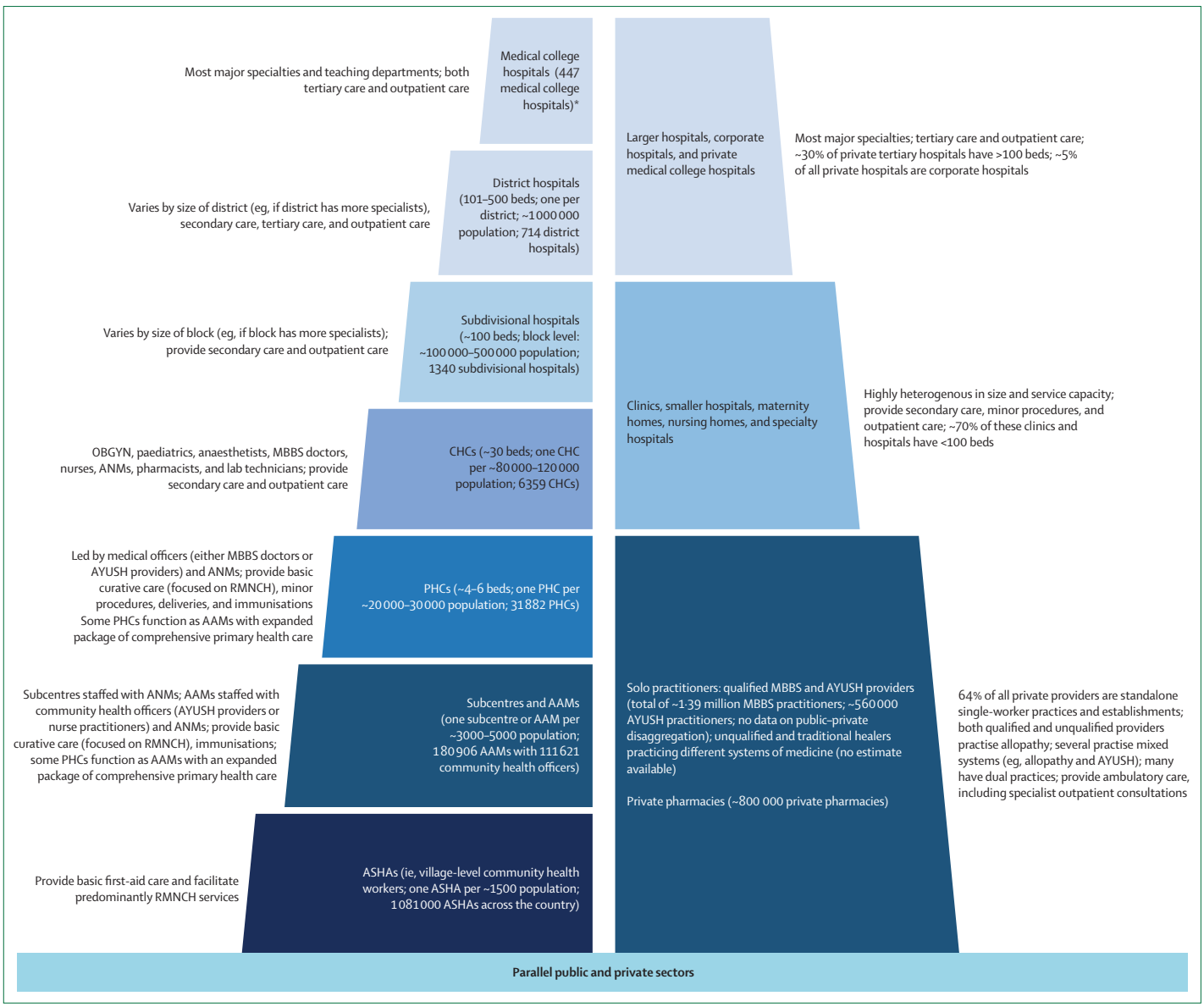



***Figure 4:*** **Structure of the health-care delivery system with main roles, numbers, and sources of funding**
Population norms for each type of provider were obtained from the Indian Public Health Standards of the Ministry of Health & Family Welfare. The total number of public sector medical colleges was obtained from National Medical Commission data (2025). The total number of other public sector facilities was obtained from the report on Health Dynamics of India: Infrastructure and Human Resources (2022–23) of the Ministry of Health & Family Welfare. The number of private pharmacies was obtained from the All India Organisation of Chemists and Druggists (2021). The size of different private sector providers are estimations mentioned in a National Institution for Transforming India report (2019); there are no census data on the private sector. (appendix pp 1–2). OBGYN=obstetrics and gynaecology. MBBS=Bachelor of Medicine, Bachelor of Surgery. ANMs=auxilliary nurse midwives. CHCs=community health centres. AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. RMNCH=reproductive, maternal, newborn, and child health. PHCs=primary health centres. AAMs=Ayushman Arogya Mandirs. ASHAs=accredited social health activists. *These include 20 All India Institutes of Medical Sciences. These do not include Ayurvedic, Homeopathy, Siddha, or Unani medical colleges and hospitals.

doctors in 2021 (measured as the difference between the required number of doctors based on the number of primary health centres and number of sanctioned posts), whereas several States, including Maharashtra, Telangana, and Arunachal Pradesh, had between one and a half and five times the required number of MBBS doctors.[47] Research shows that when staffing levels are assessed using workload-based criteria rather than IPHS norms, shortages of clinical personnel become evident—even in facilities that technically meet IPHS staffing requirements.[48]

India's private sector accounts for the majority of outpatient consultations and a substantial share of inpatient care. Yet, it remains highly heterogeneous in scale and organisation and comprises an eclectic range of for-profit providers, including large corporate hospitals, smaller doctor-owned hospitals, and nursing homes; qualified and unqualified solo practitioners and

traditional healers; diagnostic centres; and private pharmacies that dispense medicines and offer consultations. A relatively small share of the private sector comprises not-for-profit hospitals, clinics, and community-based health services run by NGOs and faith-based institutions. The largest proportion of private sector facilities are small units (eg, single-provider clinics, nursing homes with fewer than ten beds, or standalone diagnostic centres) operating with limited staff (eg, one or two doctors, one nurse or auxiliary nurse midwife, and basic technical infrastructure).[49] Larger corporate hospitals, although representing a much smaller fraction of total facilities, contribute disproportionately to tertiary care capacity. Many of these hospitals follow a hosted model, in which specialist doctors and surgeons practise independently within hospital premises, supported by the hospital's infrastructure, diagnostics, and nursing teams. This model enables flexibility and access to a wider range of expertise but can also result in variability in clinical quality and coordination of care. This structure, with numerous, small, locally embedded providers alongside a concentrated set of high-capacity secondary and tertiary centres, has advantages in accessibility and choice, but poses challenges for stronger referral linkages, interoperable health records, and quality assurance mechanisms to ensure consistency across the care continuum.

Over the past decade, there has been a substantial improvement in the availability of medical personnel, including MBBS doctors, AYUSH physicians, nurses, and midwives at the national level. As of 2023–24, India's MBBS doctor:population ratio was 1:1263, and when including AYUSH physicians, this ratio is 1:834: an increase of over 40% since 2010.[50] There are 2·89 nurses and midwives per 1000 population versus the WHO norm of four nurses and midwives per 1000 population, which is a considerable shortfall despite a marked increase of 175% since 2010.[47,50] These increases are largely driven by Central government policies to expand medical education by establishing new training institutions, increasing the intake capacity of existing medical institutions, upgrading existing district hospitals to medical colleges, and relaxing the norms of establishing medical colleges and nursing institutions in the private sector.[51] For example, the Ministry of Health & Family Welfare's (MoHFW) data show that, between 2013–14 and 2025–26, there has been a 109% increase in government medical colleges (from 387 colleges to 809 colleges), a 143% increase in medical undergraduate intake capacity (from 51 348 seats to 124 825 seats), and a 144% increase in medical postgraduate intake capacity (from 31 185 seats to 76 174 seats). This massive expansion in training capacity has, however, been marred by variations in the quality of education being provided.[52,53] Additionally, there have been increases in other cadres of human resources for health; for example, between 2014 and 2025, the number of staff nurses increased by 138% and the number of laboratory technicians and pharmacists increased by 527%.

As of 2021, the bulk of India's total qualified health workforce (63%) was employed in the private sector. 65% of MBBS doctors, 93% of AYUSH physicians, 51% of nurses, and 67% of other providers are employed in the private sector.[54] As of March, 2022, a substantial portion of sanctioned posts remain vacant for primary health centre doctors (9451 [24%] of 39 669 posts), specialists (including surgeons, obstetricians, and gynaecologists) at community health centres (9343 [68%] of 13 787 posts), and doctors and specialists across public sector district hospitals (29 817 [85%] of 35 192 posts) and subdivisional hospitals (18 643 [79%] of 23 478 posts).[47] Even among the positions filled, an estimated 25–40% of doctors and specialists are absent from work, especially at public sector primary care facilities,[55,56] and the India Health Systems Project (2020) and other studies[57,58] estimate that 20–50% of doctors are engaged in dual practice—legal in several States—in which they have private practices while holding public sector jobs. Furthermore, the benchmarks used for sanctioning nurses, doctors, and specialists across public sector facilities do not take into account workload and staffing needs, leading to skewed distributions even when positions are filled.[48] These problems are further compounded by the maldistribution of qualified human resources between States (figure 5) and between rural and urban areas, both of which are persisting problems in India; for example, in 2019, only 27% of MBBS doctors and 36% of nurses worked in rural areas, where 65·5% of India's population lives.[54] As of 2025, India has 1·08 million community health workers (ie, ASHAs), supplementing a growing workforce of over 111 621 community health officers. Embedded in their respective communities, ASHAs are considered the first point of contact with the public sector health system, mobilising the community for local health planning and delivering most of the preventive–promotive health services. However, ASHAs are considered voluntary health workers who are paid only task-based incentives, although some States have introduced small, fixed honoraria to supplement these incentives.

## Health financing

The largest proportions of health care in India are funded by a combination of government health expenditure (GHE) and out-of-pocket expenditure (OOPE) borne by households at the point of service, with limited prepayment and pooling (figure 3). As of 2019–20, India's total health expenditure (THE) was 3·3% of its gross domestic product (GDP), most of which were current expenditures (90·5%) and the rest were capital expenditures (9·5%).[32] According to the government's National Health Accounts, India's per capita GHE almost doubled, increasing from INR 1042 per capita (1·15% of GDP) in 2013–14 to INR 2014 per capita (1·35% of GDP)

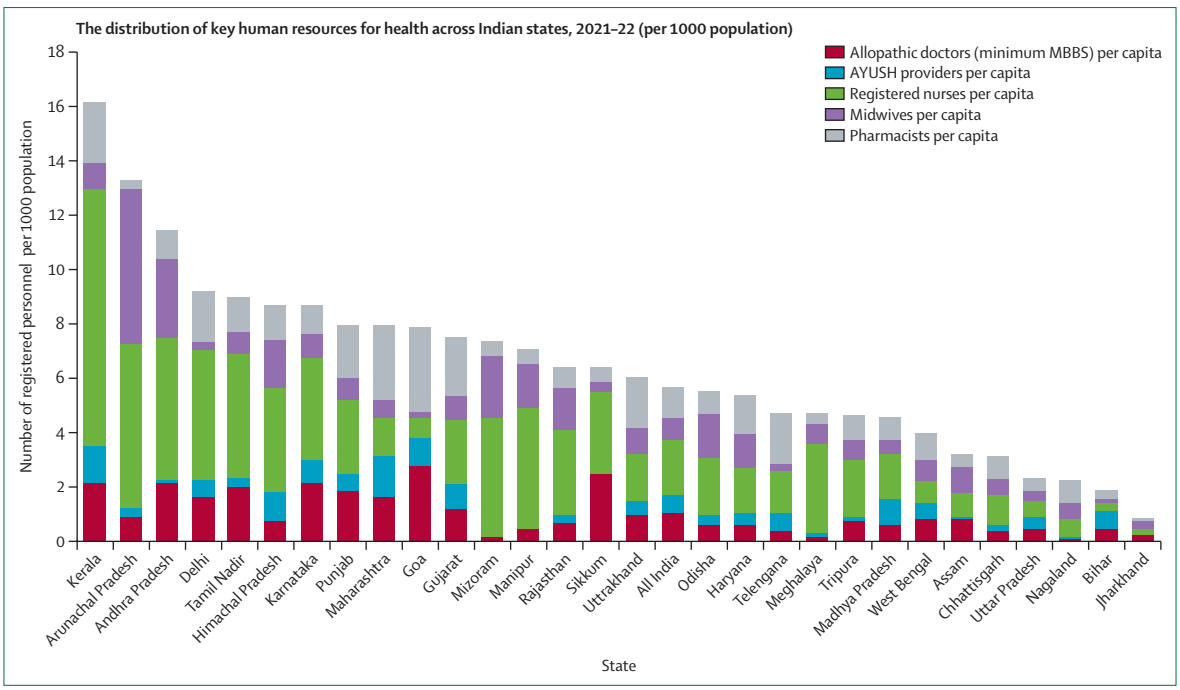



***Figure 5:*** **Distribution of key human resources for health across Indian States**
MBBS=Bachelor of Medicine, Bachelor of Surgery. AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. Data from the Central Bureau of Health Intelligence and Rural Health Statistics (2021).

in 2019–20.[32,59] During the same period, OOPE fell from INR 2336 per capita (2·6% of GDP; 64·1% of THE) to INR 2289 per capita (1·54% of GDP; 47·07% of THE).[32,59] GHE increased further to INR 2328 per capita (1·60% of GDP) in 2020–21,[60] and to INR 3169 per capita (1·84% of GDP) in 2021–22,[61] reflecting a surge of public financing to cope with the COVID-19 pandemic. Simultaneously, between 2020–21 and 2021–22, OOPE as a share of THE declined from 42·8% to 39·4%, indicating a continued shift towards greater public financing and reduced household financial burden.[60] However, given the highly unusual circumstances of 2020–21 and 2021–22 due to the pandemic, and the current unavailability of National Health Accounts data for later periods, we confined our analysis in this report to the period up to 2019–20. Although subsequent budget data suggest that many State governments might have maintained health expenditures at levels higher than those prevailing before the pandemic, this remains outside the scope of our detailed analysis. Households continue to bear a large portion of health-care costs through OOPE (figures 3, 6), and GHE as a proportion of GDP remains modest compared with other middle-income countries such as Brazil (4·3% of GDP), China (2·9% of GDP), and South Africa (4·0% of GDP).[62] The principal driver of differences in these GHE proportions is that, while India allocates about 5% of its annual general government expenditures to health care, Brazil allocates 9%, China allocates 8·8%, and South Africa allocates 16·89% to health care.[25]

Taxes remain the primary source of GHE in India. About 90% of India's workforce is employed in the informal sector, which poses challenges for mobilising resources through payroll taxes or other contributory financing mechanisms. States generate revenues through a combination of their own taxes and shared government taxes, and receive Central government grants based on specific revenue-sharing rules based on their population, income, and other characteristics. Although most of the total GHE is borne by States, centrally sponsored schemes, such as the NHM and AB-PMJAY, are 60–90% funded by the Central government, and constitute 55% of the national health budget; States are responsible for the rest of the expenses and for implementing them with some autonomy. This government tax resource pool covers all services provided by public sector facilities. Additionally, the AB-PMJAY and its State equivalents purchase specific in-patient services from public and private sector providers.

Purchasing mechanisms are largely passive. The government tax resource pool primarily uses automatic line-item budgets to pay public sector facilities and salaries for individual providers, with some limited performance-linked conditionalities for Central government transfers to States for programmes such as the NHM. A relatively small proportion of purchasing (approximately 5–7% of government health budgets) is provided through government insurance programmes using case-based payments for hospitalisations. All public sector facilities with in-patient services are

automatically empanelled and receive these payments over and above their budgets when they treat government insurance beneficiaries. A national reference price is set for each set of procedures and additional incentives are paid to teaching hospitals and facilities with quality accreditation from a national board.[63] The MoHFW's Health Technology Assessment Agency (HTAIn; established in 2017 under the Department of Health Research) and the Health Financing and Technology Assessment unit (HeFTA; established in 2022 within the National Health Authority [NHA]) aim to undertake costing and cost-effectiveness analyses for different health-care interventions aimed at informing prices and controlling costs.

Two other large pools finance health care in India: (1) ESIS is a mandatory contributory social health insurance that covers blue-collar workers in the formal sector for outpatient and secondary care through their own network of hospitals; and (2) voluntary health insurance pools, with various public and private sector insurance companies, provide indemnity insurance plans predominantly for hospitalisations that households can voluntarily purchase. These indemnity-style health insurance plans reimburse policy holders for medical expenses incurred up to a predefined limit, allowing them to choose health-care providers and facilities without network restrictions. In addition to these pools, there are multiple fragmented pools, several of which are based on employment, such as the Central government Health Scheme for Central government employees and civil servants, State government employees' health schemes, the Railway Health Services for current and retired Indian Railways employees, and the Armed Forces Medical Services for defence personnel.

The primary sources of revenues for the private sector are fee-for-service payments made directly by patients out-of-pocket and, to a much smaller extent, by government and voluntary insurance, which are restricted to episodes of inpatient care. The relatively small not-for-profit sector is financed through grants and donations from domestic and international donors, government funds for participating in health programmes, and subsidised user fees.[49]

There are multiple centralised and decentralised mechanisms used for purchasing drugs. At the Central government level, the MoHFW undertakes procurement

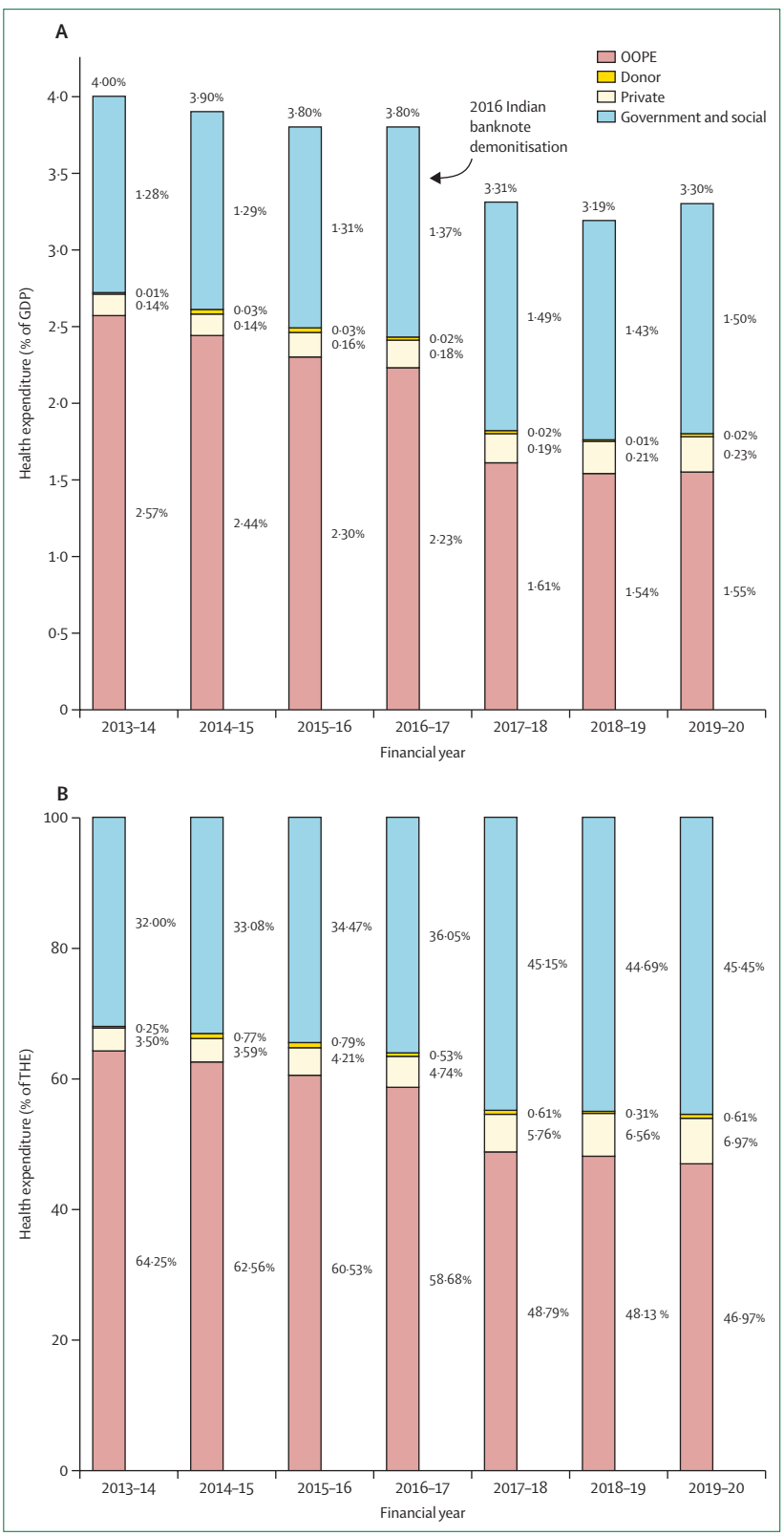
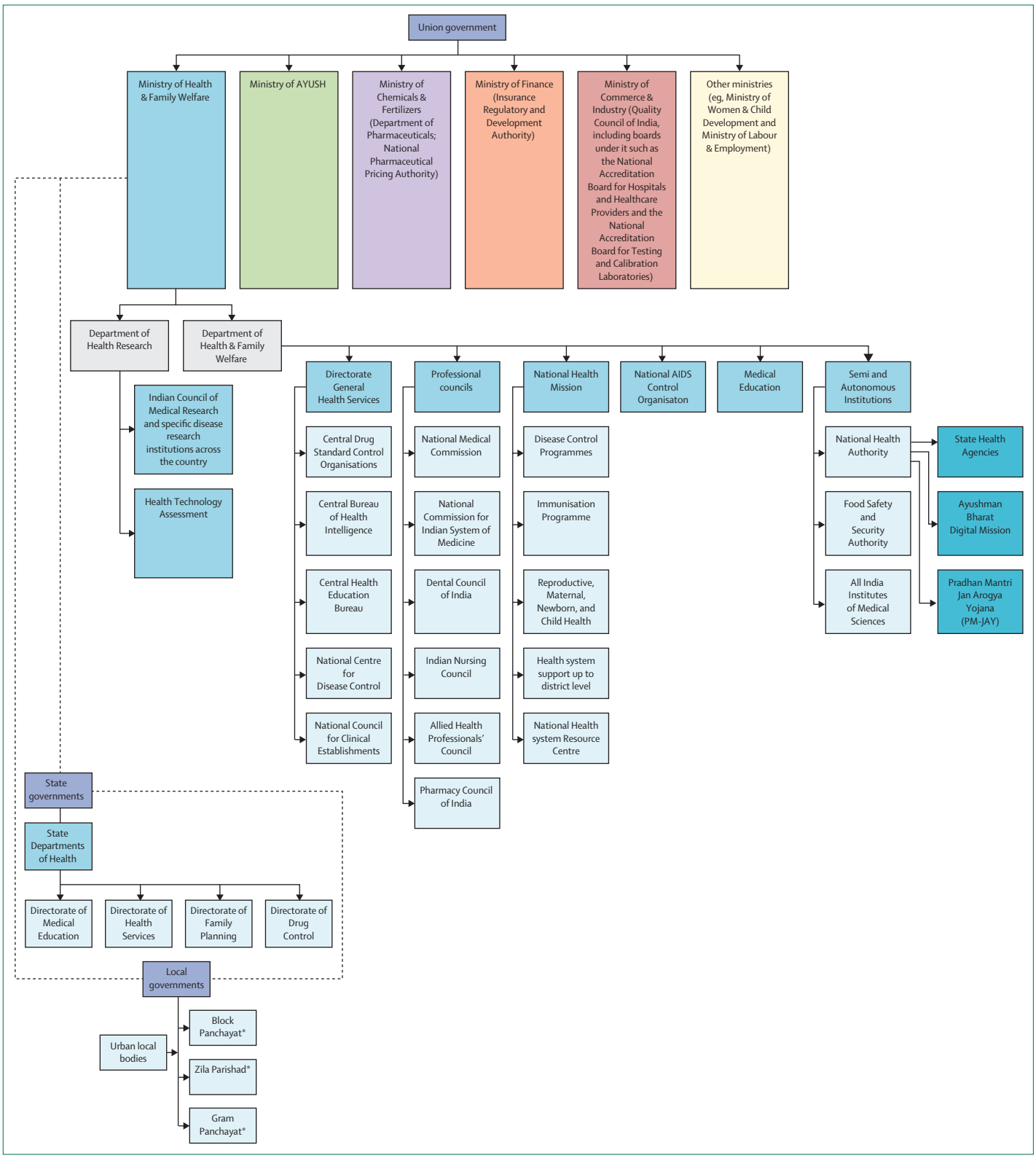



***Figure 6:*** **Composition of THE (2013–14 to 2019–20)**
(A) Sources of health expenditure as proportion (%) of GDP. (B) Sources of health expenditure as proportion (%) of THE. The social security expenditure:GDP ratio is adjusted downwards to ensure that the total adds up to the THE:GDP ratio to eliminate the potential for double counting. Government health expenditure and social security expenditure are combined. Data from the National Health Accounts (2019–20). THE=total health expenditure. GDP=gross domestic product. OOPE=out-of-pocket expenditure. Figure created with Datawrapper.de.


Union government
Ministry of Health & Family Welfare
Ministry of AYUSH
Ministry of Chemicals & Fertilizers (Department of Pharmaceuticals; National Pharmaceutical Pricing Authority)
Ministry of Finance (Insurance Regulatory and Development Authority)
Ministry of Commerce & Industry (Quality Council of India, including boards under it such as the National Accreditation Board for Hospitals and Healthcare Providers and the National Accreditation Board for Testing and Calibration Laboratories)
Other ministries (eg, Ministry of Women & Child Development and Ministry of Labour & Employment)
Department of Health Research
Department of Health & Family Welfare
Indian Council of Medical Research and specific disease research institutions across the country
Health Technology Assessment
Directorate General Health Services
Central Drug Standard Control Organisations
Central Bureau of Health Intelligence
Central Health Education Bureau
National Centre for Disease Control
National Council for Clinical Establishments
Professional councils
National Medical Commission
National Commission for Indian System of Medicine
Dental Council of India
Indian Nursing Council
Allied Health Professionals' Council
Pharmacy Council of India
National Health Mission
Disease Control Programmes
Immunisation Programme
Reproductive, Maternal, Newborn, and Child Health
Health system support up to district level
National Health system Resource Centre
National AIDS Control Organisaton
Medical Education
Semi and Autonomous Institutions
National Health Authority
Food Safety and Security Authority
All India Institutes of Medical Sciences
State Health Agencies
Ayushman Bharat Digital Mission
Pradhan Mantri Jan Arogya Yojana (PM-JAY)
State governments
State Departments of Health
Directorate of Medical Education
Directorate of Health Services
Directorate of Family Planning
Directorate of Drug Control
Local governments
Urban local bodies
Block Panchayat*
Zila Parishad*
Gram Panchayat*

of medicines, vaccines, and health commodities primarily through the Medical Stores Organisation and its seven medical depots in different parts of the country, which purchase drugs for national disease control programmes and facilities run by the Central government, and the government's HLL Lifecare, which manages large-scale, consolidated procurement for initiatives such as the NHM, the National AIDS Control Programme, and immunisation campaigns, operating through multiple central medical stores depots and ensuring quality assurance through government-mandated standards. Additionally, centrally sponsored schemes, ESIS, and other departments also purchase drugs. At the State level, most procurements are undertaken through the respective State Departments of Health (DoH), with several States (including Tamil Nadu, Kerala, Andhra Pradesh, Odisha, Bihar, and Maharashtra) operating pooled procurement mechanisms via autonomous medical services corporations.[64] In parallel, the Jan Aushadhi programme sources medicines from government-approved manufacturers through its own supply chain, with all products tested for compliance with prescribed quality standards before distribution.[65] The Drugs and Vaccines Distribution Management System, a web-based supply-chain management system that has been operational since 2016–17, deals in the purchase, supply, distribution, and inventory management of various drugs and consumables by linking various regional and district drug warehouses, district hospitals, and their substores in community health centres, primary health centres, and subcentres.

## Health system governance

The governance of India's health system is complex and varies across States. Constitutionally, health is a responsibility of both the Central and State governments through the Union, State, and Concurrent Lists in its seventh schedule. States primarily handle public health, sanitation, and health-care services (through the State List), while the Central government oversees national priorities such as quarantine, international health agreements, and regulations for major ports that have large-scale public health implications (through the Union List). Both levels of government share responsibilities for some services, including infectious disease control, drug regulation, and family planning (through the Concurrent List). Hence, although States have the primary legislative authority, laws made by the National Parliament can override State legislation. Each State operates its own health facilities and manages its human resources of health through its DoH. The Central government oversees national-level policy making and planning. At the Central government level, health care is primarily governed by the MoHFW, with exceptions such as AYUSH and voluntary health insurance, which are overseen by other ministries (figure 7). The MoHFW, accountable to Parliament for its budget and oversight, operates via the Department of Health Research and the Department of Health & Family Welfare: two independent departments with their own technical entities and each with multiple administrative institutions under them. The Directorate General of Health Services and the NHA are attached to the Department of Health & Family Welfare (figure 7). This complex architecture is replicated at the State level. Although many States have separate departments for health and medical education, several States do not have a department of research, and functions such as health services, hospital services, AYUSH, and pharmaceuticals might be led by separate directorates.

Decentralisation in health governance is rooted in India's federal structure. Beyond State governments, local government bodies (eg, at the district, block, and village [Panchayats] levels) or town and city councils (eg, Nagar Palikas or municipalities) with democratically elected representatives are expected to play a role in health governance. Decentralised decision making and implementation are supported by fiscal devolution of funds and the transfer of financial resources from Central to State governments and from States to local bodies.

One uniform characteristic across this complex governance structure is that India's public sector does not have a clear purchaser–provider split (ie, a separation of the institutions that fund health-care services [purchasers] from those that deliver the services [providers]). The MoHFW and State DoH play the roles of both purchaser and provider. The NHA was established in 2019 to lead the AB-PMJAY as an attached office of the MoHFW, but with some operational and functional autonomy, as a step towards a purchaser–provider split and to undertake strategic purchasing (ie, to allocate pooled funds to providers based on population health needs and provider performance) and enhance efficiency, equity, and quality by making deliberate decisions about what services to buy, from whom, and how. However, the NHA is governed by the MoHFW, has limited functional autonomy, and has not been given the legislative mandate to act as the intended autonomous purchasing body.[66] State Health Agencies (SHAs) that oversee the State-level implementation of the AB-PMJAY are administratively under the State DoH, not the NHA.

There are several regulations and accreditations for providers and insurers. Health professionals are

*Figure 7:* **An overview of India's health governance structure**
Note: This structure focuses on the Ministry of Health & Family Welfare and entities under it. We have not illustrated the entities under the Ministry of AYUSH. Several government departments and programmes outside of the Ministry of Health & Family Welfare also provide health services, such as the Ministries of Railways, Defence, and Labour and Employment, or address social determinants of health, such as maternal and child nutrition by the Ministry of Women and Child Development. These programmes are not depicted in this figure. AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. *These bodies are under the Ministry of Panchayati Raj. Adapted from Gupta and Patel (2020) and Selvaraj S et al (2022; appendix p 2).

registered under relevant councils, such as the National Medical Commission (NMC) for MBBS doctors and MD/MS and Diplomate in National Board specialists; the Indian Nursing Council for nurses and auxiliary nurse midwives; the Pharmacy Council of India for licensed pharmacists; and the National Commission for Indian Systems of Medicine for AYUSH physicians. These councils are responsible for the regulation of training, certification, and conduct of their respective provider categories. Although continuing medical education has been mandated in recent years, there are no periodic re-licensing requirements. Other regulations, such as the Clinical Establishment Act (2010) and the Pharmacy Practice Regulations (2015), are aimed at regulating the clinical quality of health facilities and pharmacies, respectively, although they are not mandatory for States. Accreditation through the National Accreditation Board for Hospitals and Healthcare Providers and the National Accreditation Board for Laboratories aims to standardise and certify quality standards for private hospitals and diagnostic laboratories. Several initiatives, including the National Quality Assurance Standards (2013), the LaQshya Initiative (2017), Kaya Kalp (2015), the Safety and Quality Self-Assessment Tool for Health Facilities (2022), MusQan child-friendly services in public sector health facilities (2021), and Surakshit Matritva Aashwasan (2019), are aimed at setting standards for infrastructure, hygiene, and cleanliness in public sector facilities, while Mera Aspataal (2016) gathers patient feedback about public hospital services through SMS, an app, and a web portal. Additionally, in June, 2024, the Central government introduced the Open Data Toolkit that public sector health facilities can use to assess themselves against IPHS norms. As of October, 2025, 99·5% of government facilities have used this toolkit. The Central government regulates the insurance market through the Insurance Regulatory and Development Authority of India and has a limited number of insurance ombudsman offices (only 17 offices nationwide).

Historically, the responsibility for health data gathering is divided among these different ministries or institutions and has developed over time through a range of complementary mechanisms serving distinct purposes. The Health Management Information System compiles routine, facility-based data from State-level and district-level health authorities under the NHM. Large-scale population surveys, such as the National Family Health Survey, District Level Household Survey, and National Sample Survey (NSS), as well as vital statistics from the Registrar General and Census Commissioner, add demographic and epidemiological depth, albeit through separate systems and institutions. Public health disease surveillance data, predominantly on infectious diseases, has historically been collected by the Integrated Disease Surveillance Programme and, more recently, the Integrated Health Information Platform, with support from the National Centre for Disease Control through State and district surveillance units. The Integrated Health Information Platform provides near real-time surveillance data for over 30 health conditions. Other specialised agencies and vertical disease programmes, including the NHM's Reproductive, Maternal, Newborn, Child, and Adolescent Health (RMNCH+A) programme and the MoHFW's National Programme for Prevention and Control of Non-Communicable Diseases (NP-NCD) collects their own data.

The NMC launched the National Medical Register in 2024, a centralised digital platform that standardises and validates information on all licensed medical practitioners, enabling real-time updates of providers; the data are still expected to be provided by the State medical councils and there have been delays and inconsistent reporting. Facility surveys collect data sporadically from the public sector (eg, through the Rural Health Survey that collects data about infrastructure and personnel at public sector health-care facilities), but do not collect data from the private sector, impeding an estimation of service capacities in the overall health system. In the private sector, clinical data are mostly captured on paper and are usually not archived, except in larger hospitals. The digitisation of clinical notes is in the nascent stages. In the public sector, clinical information is aggregated at the facility level and reported through vertical programmes, precluding a unified picture.

Thus, although there are a number of data sources on health systems in India, these platforms have traditionally operated independently, leading to segmented data flows, inconsistent formats, and challenges in real-time analysis and interoperability. For example, although the Health Management Information System covers around 200 000 public sector health facilities monthly, duplication and missing data across systems pose obstacles to efficient and reliable data use. Recent initiatives under the ABDM and other policy reforms are promising to address these challenges. The National Digital Health Blueprint (2020) outlines a federated, standards-based architecture to unify data from national surveys, facility registries, disease registries, and insurance claims. The ABDM has begun operationalising this vision through foundational layers such as the Health Facility Registry, Health Professional Registry, and the Ayushman Bharat Health Account identification numbers (ABHA IDs), facilitating secure data flows and streamlined coordination across stakeholders. While full interoperability is still being realised, these efforts reflect a shift towards unified, accessible health data systems—laying the groundwork for better research, policy making, and citizen-centred care.

### Citizen engagement with the health system

India has a long history of citizen engagement, civil society movements, and community action for health, as mentioned in section 2. The NHM has also created

platforms for citizen engagement through the formation of committees at decentralised levels such as the Village Health, Sanitation, and Nutrition Committees (VHSNCs) at the village level and citizens' groups called Mahila Arogya Samitis in urban slums, Jan Arogya Samitis at the AAM level, and patient welfare committees called Rogi Kalyan Samitis (RKS) in public sector facilities. These platforms are resourced with annual, flexible, untied government budgets and are supplemented by donations. The primary mandate of these committees is to generate awareness about health programmes and entitlements in their respective communities, facilitate access to health services, address specific local needs through community-based interventions, serve as a mechanism for community-based planning and monitoring, and hold health-care providers accountable for providing high-quality services. In addition, each VHSNC and Jan Arogya Samitis is expected to monitor the performance of ASHAs, auxiliary nurse midwives, and AAMs, and RKS at primary health centres, community health centres, subdivisional hospitals, and district hospitals are expected to monitor their respective facilities for compliance to standards of care and to hold them accountable for patient welfare. These committees are convened by the area's nodal or most senior health administrator and include membership of other key health personnel, elected representatives, civil servants, and citizen representatives nominated by the convenors. As of 2020, more than 550 000 citizen committees were formed across all districts and in nearly 85% of villages.[67] The Advisory Group on Community Action under the NHM has engaged and supported State governments and NGOs nationwide across 230 000 villages and 145 cities across 25 States to strengthen community action processes through the organisation of over 3000 Jan Samwads (panel 2), who provide a platform for citizens, frontline health workers, and health officials to discuss and find solutions on local issues and redress grievances, as well as work with State and decentralised government institutions.

Additionally, community mobilisation led by NGOs and civil society movements has played an important role in health service delivery, catalysing increased investments in community action for health, and advocating for the Right to Health. NGOs have had notable roles in delivering health care and health education and igniting demand for better health in their communities. They have also worked to address health equity concerns by focusing on specific vulnerable communities and neglected health conditions.

### *Panel 2:* Jan Samwads: engaging communities to enhance health-care accountability

Jan Samwads (public dialogues) are part of the community action for health process. They are organised biannually at the State, district, and village levels to initiate a dialogue between communities, frontline workers, and staff officials. These events are also attended by Village Health, Sanitation, and Nutrition Committee members and Panchayati Raj institution members, with district magistrates and government officials addressing feedback and grievances. In the period of 2014–23, over 3000 Jan Samwads have been organised across 16 States, hosted by the Population Foundation of India, which has developed guidelines and tools for conducting these dialogues and has trained 50 000 State-level, district-level, and block-level National Health Mission staff and civil society organisations.

The Jan Samwads facilitate public voicing of issues, fostering a greater understanding of community health-care challenges among administrators and policy makers, and finding joint solutions by bringing the public into public health. The Jan Samwads have led to improvements in the health system across the country, including improved health-care infrastructure, service provision, staff responsiveness, and fund utilisation. Examples include construction and repair of health subcentres and staff quarters for auxiliary nurse midwives in Jharkhand and Tamil Nadu; construction and allocation of restrooms for accredited social health activists in remote districts in Uttarakhand; timely disbursement of incentives for frontline workers in Jharkhand, Bihar, Rajasthan, and Assam; initiation of adolescent-friendly health clinics in Bihar and Uttarakhand districts; posting female doctors at primary health centres in Bihar's Nawada district; and ensuring regular availability of medicines in districts of Assam. The Common Review Mission* also noted substantial impacts based on decisions taken during Jan Samwads, including immunisation sites being moved to hard-to-reach areas, improving coverage in Uttarakhand, and Jan Samwads addressing maternal deaths, denial of health services, and availability of basic amenities at hospitals in Meghalaya. The impact of citizen engagement in the Darbhanga and Nawada districts of Bihar, which was implemented by the Population Foundation of India, led to early registration of pregnancies increasing from 197 (36%) of 548 women of reproductive age to 443 (78%) of 568 women of reproductive age, home visits by accredited social health activists and auxiliary nurse midwives for newborn health increasing from 129 (36%) of 358 home visits to 269 (76%) of 354 home visits, and access to oral contraceptives increasing from 54% to 81% and access to condoms increasing from 22% to 89% during 11 Village Health, Sanitation, and Nutrition Committee days.

*The Common Review Mission is an annual exercise led by the Ministry of Health & Family Welfare. The objective is to undertake a rapid assessment of the functional status of various health programmes running under the National Health Mission and to understand key drivers and challenges affecting their implementation. Sources: National Health Systems Resource Centre (2018); 12th Common Review Mission report (2018); National Health Systems Resource Centre (2019); 13th Common Review Mission report (2019); Evaluation of Population Foundation of India's Community-Based Monitoring Implementation in Bihar: Endline Findings.

Population Foundation of India.

**Jan Samwad at Najardih Health and Wellness Center, District Nawada, Bihar, India**

Population Foundation of India.

**Jan Samwad at primary health centre in Jagdispur, Bhagalpur, Bihar, India**

Civil society has also informed and influenced several health policies and programmes. For example, the design of India's ASHA programme was informed by decades of advocacy and direct experiences of NGOs working with underserved populations,[68] and community action for health became one of the main pillars of the NHM through decades of advocacy and government and civil society collaborations in several key implementation experiences.[69] Additionally, numerous NGOs and community-based collectives have provided models that have informed wider-scale financial protection platforms, participatory learning and action, and outreach to improve access to health services.[69–71]

Presently, the Indian Constitution does not explicitly provide a Right to Health. However, the Directive Principles of State Policy in the Constitution place an obligation on the State to ensure the health and wellbeing of its citizens. Historically, through judicial interpretations, the Supreme Court and various High Courts have expanded the Right to Life (in Article 21 of the Constitution) to include the Right to Health as an implicit part of the Right to Live with Dignity. Important legislations and policies have included rights-based entitlements to health care; for example, the National Health Policy (2017) emphasises universal access, government responsibility, and collective benefit; and the National Mental Health Care Act (2017) enshrines the Right to Care for people with mental health conditions. India is also a signatory to the Universal Declaration of Human Rights (1948), and the Indian Constitution specifies the Fundamental Rights and enshrines Directive Principles of State Policy, which courts have interpreted as akin to health rights. Furthermore, the Supreme Court allows direct petitions through public interest litigation to address violations of patients' rights. The State of Rajasthan passed a Right to Health bill, despite protests from some physician bodies; discussions are ongoing in several other States to enact similar legislation.[72]

## Section 3: India's UHC achievements and challenges

In this section, we assess India's performance on the core UHC goals across four dimensions: the health status of India's population, access to care, the quality of care, and the extent of financial risk protection. As the core underlying value of UHC, we discuss equity across each of these goals.

### UHC goal 1: population health status

*There have been large improvements in life expectancies, maternal and child survival, fertility rates, and control of infectious diseases, but achievements have been uneven and inequitable*

At the outset. we acknowledge that the definition of UHC does not explicitly include population health status as a goal. That said, we consider it a crucial objective of the health system, not least because many health outcomes, such as maternal survival, are substantially influenced by health system factors. India's life expectancy at birth has doubled from 32 years in 1952 to 69·9 years in 2022.[41] However, life expectancy at birth is still lower in India compared with many other LMICs such as Bangladesh (74 years), Brazil (73 years), China (79 years), and Sri Lanka (77 years).[73] A large proportion of the gains in longevity can be attributed to reductions in infant mortality. Infant mortality in India reduced by 73% between 1990 and 2023 compared with the global average decline of 58%, while mortality in children younger than 5 years declined by 78% compared with the global average decline of 60%.[74] Over the same period, India's maternal mortality ratio declined by 86% compared with the global average decline of 48%.[75] The major drivers of these improvements were the enhanced coverage of antenatal and peripartum care in high-performance States; 89% of live births are now institutional deliveries.[33] The epidemiological profile of child mortality is now increasingly attributed to preterm birth complications and congenital anomalies, particularly in States with low levels of mortality.[74] A multisite, population-based study observed that, in 2018, almost one in eight children had a neurodevelopmental disability, with strong associations with prematurity, poor obstetric care, and stunting.[75] According to the fifth round of the National Family Health Survey (2019–21), although all but five States (Uttar Pradesh, Bihar, Jharkhand, Manipur, and Meghalaya) have achieved the replacement fertility rate of 2·0, unmet needs for contraception are still high, with just over half of women in the lowest wealth quintile using modern methods of contraception.[33]

India has also witnessed impressive declines in the burden of various infectious diseases. For example, the disability-adjusted life-year rate per 100 000 population for tuberculosis declined by 63·8% between 1990 and 2019, by 89·5% for malaria, and by 78% for both diarrheal diseases and lower respiratory tract infections.[76] India has achieved a leprosy prevalence rate of less than one case per 10 000 population at the national level.[77] Tuberculosis-related mortality reduced by 21% and tuberculosis incidence reduced by 18% between 2015 and 2023 (more than double the global reduction),[78] while malaria-related mortality fell by 85% between 2014 and 2024.[79] Importantly, the country has successfully eradicated smallpox, polio, maternal and neonatal tetanus, trachoma, guinea worm, and yaws, and has achieved the elimination target for visceral leishmaniasis.[80] However, India still accounts for a large share of the global burden of infectious diseases. In 2024, despite a population share of 18%, India accounted for 26% of the total estimated cases of tuberculosis globally.[81] Furthermore, India accounted for 50% of malaria cases in the WHO South-East Asia region in 2023.[82]

Although India has made robust gains in health outcomes, substantial inequities persist across social and economic groups, with less pronounced improvements in health status among rural residents, lower-income households, and people belonging to historically and

socioeconomically disadvantaged castes and vulnerable tribe groups. For example, the life expectancy at birth for the general population was 68 years in 2015 compared with 63 years for socioeconomically disadvantaged castes and 64 years for vulnerable tribe groups.[83,84] In 2021, life expectancy at birth for people whose incomes were below the poverty threshold was 4 years lower than for those whose incomes were above the poverty threshold, and this difference was higher among urban residents (4·6 years) than among rural residents (1·8 years).[85] Similarly, children from disadvantaged groups are estimated as being 1·5 to 1·7 times more likely to die compared with those of the general population.[86,87] Despite sustained economic growth, India continues to face a high burden of malnutrition, with slow improvements in stunting and underweight, persistently high levels of wasting, and a worrying increase in anaemia, particularly among women and children. The burden remains disproportionately high in low-income households.[88] Recent estimates released in 2025 show that India has one of the highest prevalences of childhood stunting and wasting in the world.[89] A study analysing trends from 2016 to 2021 found that households from marginalised tribes are particularly disadvantaged in most health indicators, including basic vaccination coverage, child mortality, and undernutrition rates, although they performed better in a few indicators, including overall sex ratio.[90] In 2019–21, although the infant mortality rate in the richest wealth quintile was 17, it was more than double in the poorest wealth quintile at 48.[33] In addition to specific equity-focused interventions under the NHM and Ayushman Bharat, the government has started new initiatives to address these inequities (UHC goal 2).

Key health outcomes also vary greatly by States. For example, in 2022, the life expectancy at birth in Kerala was 74·8 years, whereas it was only 64·3 years in Chhattisgarh;[41] Kerala had an infant mortality rate of 7 deaths per 1000 live births and a maternal mortality ratio of 18 deaths per 100 000 live births, compared with an infant mortality rate of 40 deaths per 1000 live births and a maternal mortality ratio of 159 deaths per 100 000 live births in Madhya Pradesh (figure 8).[41] The proportion of stunted and wasted children increased in 11 States between 2015–16 and 2019–21.[33] Although the per capita disability-adjusted life-years have fallen by 36% in India from 1990 to 2016, there are variations in the progress across different States, with a difference of more than four times between the best-performing and worst-performing States.[91] These

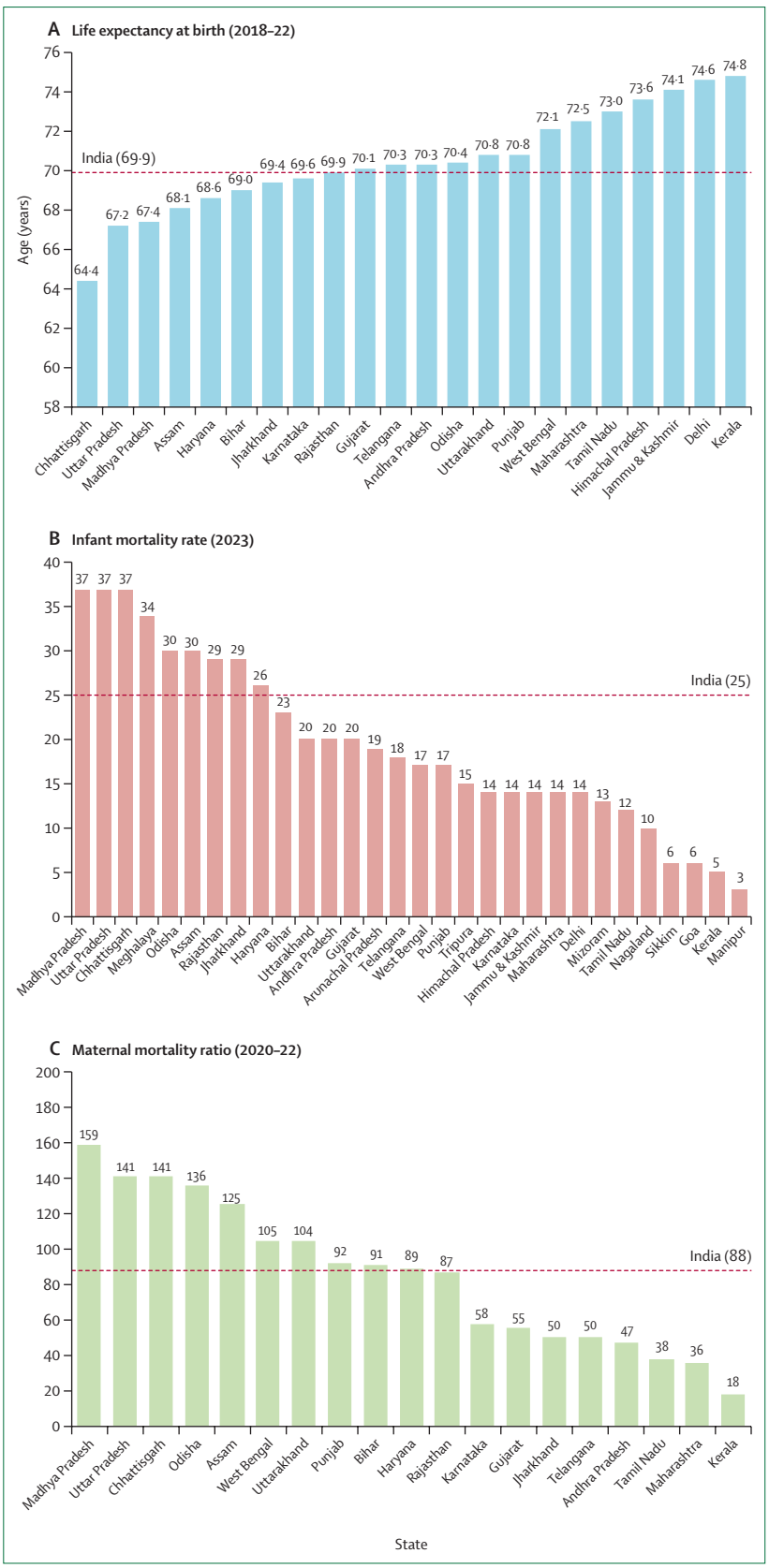



***Figure 8:*** **Life expectancy at birth, infant mortality rate, and maternal mortality ratio comparison across Indian States**

Data from Sample Registration System (2025; appendix p 2). Note: these graphs are made using data from the Sample Registration System, which include data for only specific States for certain categories. The dataset used for these graphs does not mention uncertainty intervals.

disparities underscore the structural inequities even as national averages improve.

*There is a large and rising burden of non-communicable health conditions, injuries, and multimorbidities fuelled by environmental factors and population ageing*

India has undergone a substantial epidemiological transition in the past two decades, with a growing burden of chronic conditions dominated by non-communicable diseases, which already account for 65% of all deaths (figure 9).[33,92] This epidemiological transition has been ongoing for the past three decades and is accelerating. Recent estimates have dubbed India the diabetes capital of the world, with 20% of adults aged 45 years and older being affected by diabetes.[93] Risk factors for non-communicable diseases are high and increasing as the population ages; for example, 33% of the population use tobacco, the majority consume 1·5 times the recommended salt intake, 35·5% have hypertension, and over a quarter are obese.[33,94,95] There are marked variations in the prevalence of non-communicable diseases within and between States (eg, disability-adjusted life-year rates for many non-communicable diseases vary five-fold to ten-fold across States),[91] while diabetes is more common in urban and higher-income populations than in rural and lower-income populations.[93] One in nine people are likely to develop cancer in their lifetime,[96] and three in five people die of cancer after being diagnosed (figure 9).[97]

Poor mental health is a major cause of morbidity and mortality in India, particularly in young adults (18–29 years), as most mental health problems begin in this age group. Suicide is a leading cause of death in young people.[76,98] The National Mental Health Survey (2018) reported that about 10% of the adult population surveyed had a clinically significant mental disorder, the most common of which was depression (2–3% prevalence). The Longitudinal Ageing Study in India reported that, in 2022, 5·7% of older adults had depression. Prevalence was higher among women, those living in rural areas, those who were widowed, those with no or low education, and those in the poorest quintile.[99] A national survey on the prevalence of substance use disorders in India published in 2019 estimated that harmful or dependent alcohol use affects about 5% of the population.[100] The survey estimated that 2% of the population used opioids, and of the total opioid users, over a third are in the harmful use category.[100] Opioid use was 4% in men and 0·2% in women, and the northeastern States of Sikkim, Arunachal Pradesh, Nagaland, Manipur, and Mizoram, along with Punjab, Haryana, and Delhi, had the highest prevalence of opioid use.[100]

There is a growing prevalence of multimorbidity (ie, individuals suffering from multiple chronic conditions simultaneously). A 2020 study reported that around 23% of older adults have more than one chronic condition, and multimorbidities are associated with increased age, lower income, and worse health outcomes.[101] This problem of multimorbidity could be compounded further by the demographic transition associated with an ageing population—between 2011 and 2050, the proportion of people aged 75 years and older is expected to increase by 340%.[101] Population ageing has considerable implications for the health system and the economy, as India's dependency ratio is expected to increase far more rapidly than its incomes.[102] As the country's older population grows, so too will the number of individuals needing long-term care and those living with neurodegenerative conditions (eg, dementia). Based on nationwide data from 2018–20, the estimated prevalence of dementia for adults aged 60 years and older is 7·4%, with wide cross-State variations and a significantly higher prevalence among women than men, and a higher prevalence in rural areas than in urban areas.[103] India also has a large burden of trauma and injuries, which is the most common cause of death in young people.[104] Although road traffic accidents account for a large proportion of trauma, falls, burns, and violence are other major contributors.[91] The large, and rising, burden of the entire range of non-communicable conditions and injuries places considerable strain on the health system and highlights the need for preventive measures.

*Emerging challenges pose major threats to population health*

Drug-resistant infections affect all regions, but the burden is disproportionately high in LMICs. India, given its population size and high infectious disease load, faces one of the largest national challenges, with an estimated 297 000 deaths directly attributable to antimicrobial resistance (AMR) in 2021, about a quarter of the global total.[105] Inappropriate use of antibiotics and poor infection control in hospitals are major drivers of AMR.[106] Poor infection control in hospitals is another important driver of drug resistance. Data from the Hospital Associated Infection surveillance system in a network of tertiary-level public and private hospitals[107] noted central line-associated bloodstream infection rates of around eight infections per 1000 central line days, which is higher than in most other countries with high rates of AMR.[108] Most sepsis-related newborn deaths are attributed to drug-resistant bacteria.[105] The Indian Council for Medical Research established an Antimicrobial Resistance Research and Surveillance Network in 2013, and India joined Combating Antibiotic-Resistant Bacteria (a global public–private partnership) in 2021 to foster research to tackle AMR. India's scale and interconnectedness in trade, travel, and pharmaceutical production make its response to this challenge a matter of both national and global importance.

According to the Global Climate Risk Index (2025), India has been listed as one of the top ten most vulnerable countries with respect to climate extremes.[109] India will experience climate change through unseasonal monsoons, changes in the amount of rain, and intensifying and longer heatwaves, amplified by rising humidity in large swathes of

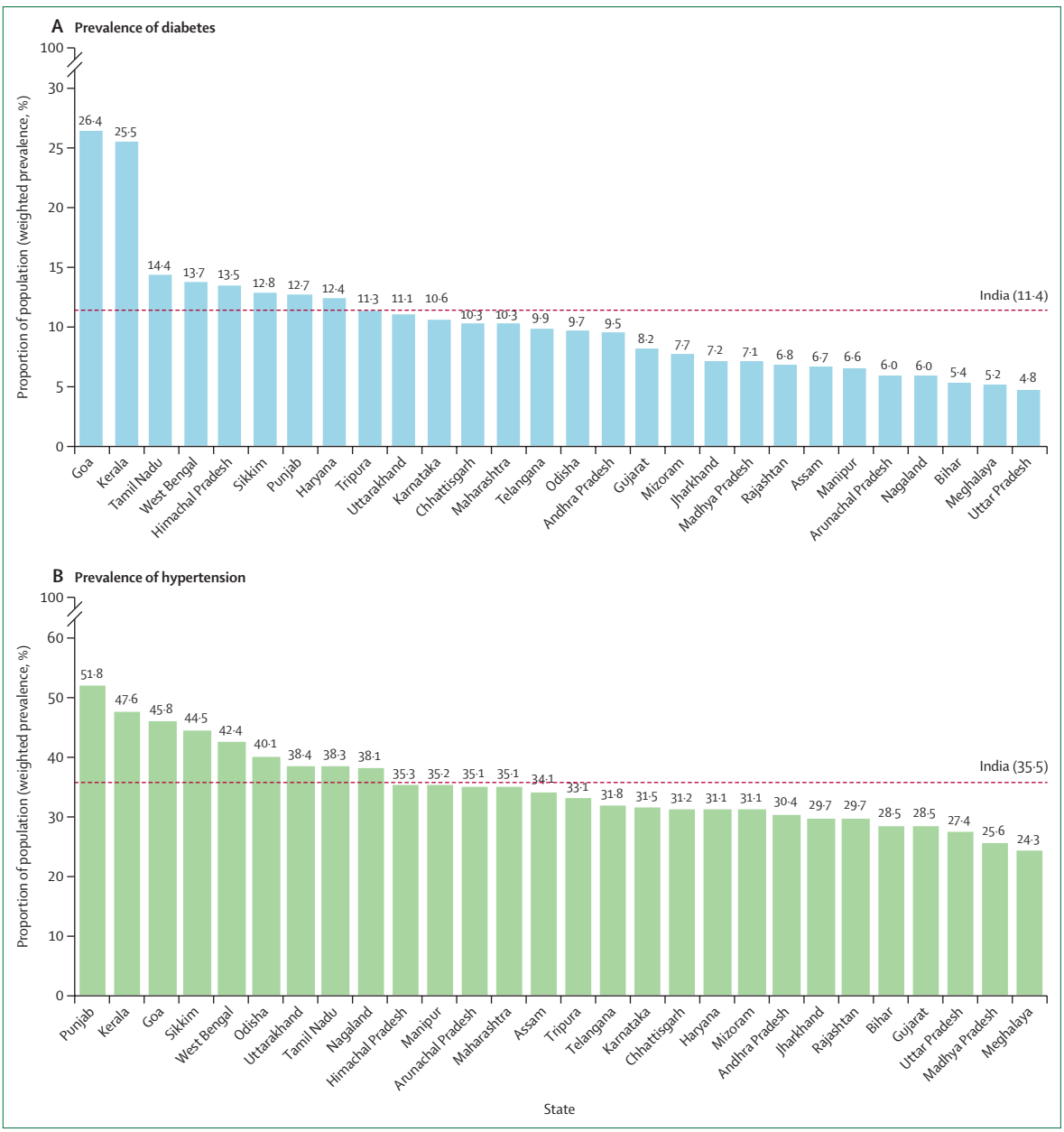



***Figure 9:*** **Prevalence of common non-communicable diseases and variations across Indian States**
Note: the dataset used for these graphs does not mention uncertainty intervals. Data from Anjana et al (2023).[94]

the country. The direct impact on health, mediated through prolonged heat exposure, and the indirect impact on health through disruption in agriculture, livelihoods, food insecurity, and loss of school days, will be disproportionately borne by India's lower-income households. Chronic health impacts will probably result from rising kidney disease, acute and chronic cardiovascular morbidities, and a mental health toll, compounding financial precarity.[110] Changing temperatures and climates could change the pattern of infectious disease epidemiology as well.[111,112] Non-communicable diseases are increasingly affecting younger populations, driven by a range of lifestyle and environmental factors such as air pollution. Air pollution levels in India are among the highest in the world, with 1·67 million deaths being attributable to it in 2019.[113]

Rapid urbanisation and ongoing rural-to-urban migration are reshaping India's demographic landscape. Roughly a third of the population resided in urban settlements in 2023, a figure that is predicted to increase to nearly half of the population by 2050.[114] A substantial proportion of people living in urban areas live in low-quality housing with limited access to drinking water or

sanitation and are exposed to higher concentrations of pollution.[114] Moreover, rapid urban growth strains health infrastructures, and sedentary lifestyles and unhealthy diets contribute to the rising prevalence of non-communicable diseases. The NHM (figure 2) represents a notable step forward in the public sector response to the health of urban populations, but India requires a comprehensive and intersectoral approach to address these emerging urban health needs equitably.

### UHC goal 2: access

*Availability of and access to services have improved, but progress has been uneven*

Access to services has improved consistently over the past two decades. According to the National Sample Surveys, 95% of households accessed care when ill in 2017–18—an improvement from 89% in 2014 and 78% in 2004.[34] In 2023, the Citizens' Survey reported that 96% of households accessed care over the past year, which aligns with other recent estimates.[34,115,116] Most households reported living within 30–40 minutes of a health-care provider, even in the least developed regions or in remote regions, and the vast majority found this time acceptable, and over 99% of the population lives within 2 hours of a hospital.[117] Similarly, the People's Voice Survey found that, in 2023, 94% of its sample received care when they needed it.[118] India's most commendable progress has been in expanding access to reproductive, maternal, newborn, and child health (RMNCH) services: 84% of children were fully vaccinated in 2021 compared with 35% in 1992, institutional births have seen a 63 percentage point increase during the same period, and uptake of any antenatal care has increased from 85% to 94%.[33,119]

However, many of these improvements in availability and access mask large inequities. For example, in 2018, 82% of households from vulnerable tribes sought care when ill compared with 92·5% of the general population.[34] Antenatal care, institutional deliveries, and immunisation coverage have been worse for rural residents and lower-income households compared with urban residents and higher-income households, for vulnerable social groups compared with the general population, and have varied widely by State.[120–122] Furthermore, poor maternal care utilisation was exacerbated by lower income, lower educational attainment, and rural residence.[120] The government has launched new programmes to improve access to essential services in remote and underserved areas, such as the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (2023), which provides health-care services, essential drugs, and diagnostics through mobile medical units; and the Pradhan Mantri Janjatiya Unnat Gram Abhiyan (2024), which aims to address broader social determinants of health. These initiatives are still in their early stages and their impact will take time to become evident.

There are considerable gaps in access to secondary, surgical, and critical care across clusters of districts, especially in the least developed and the northeastern States.[123,124] In 2019, India's total surgical rate was 1385 surgeries per 100 000 population, against the WHO benchmark of 5000 surgeries per 100 000 people required to meet the surgical burden of disease in LMICs, pointing to the unmet need of an estimated 49 million surgical procedures.[123] This overall shortfall is compounded by large State-level variations (only five States crossed this benchmark) and district-level variations.[123] The shortage of critical care is even larger, with an estimated shortfall of 90% for the critical care workforce and infrastructure.[125] The Transform Rural India Foundation survey in 2023 showed that 57·7% of households migrated out of their home districts to seek hospital care for serious ailments, and 36·7% did so because better care was available outside their home districts.

The District Case Studies (2023) reported the different challenges in access to comprehensive care in districts with different levels of UHC. In high $UHC_d$ tercile districts, the reliable presence of basic health services in the public sector was perceived as the key enabler towards UHC, while challenges included waiting times and access to specialists. In medium $UHC_d$ tercile districts, the health system was perceived to be able to address basic disease priorities with functional primary care but fell short of providing the full continuum of care. In low $UHC_d$ tercile districts, a lack of availability of medicines was identified as a key unmet need.

*Services for chronic conditions have improved, but most have limited access to citizen-centred care*

Globally, health systems face challenges in delivering truly citizen-centred care for chronic conditions such as diabetes, hypertension, and mental health disorders,

***Figure 10:*** **Health-care utilisation for outpatient and inpatient care, disaggregated by sector and type of provider**

(A) Health care-seeking for all outpatient consultation and inpatient hospitalisations in the past 12 months across different sectors based on unique combinations of multiple response questions per household. Health care-seeking for all outpatient (B) and inpatient (C) consultations in the past 12 months across different sectors. In outpatient care, the public category comprises ASHA and other community workers, subcentres, PHCs, CHCs, and government hospitals (eg, subdistrict hospitals, district hospitals, and medical college and tertiary hospitals). The private category comprises private clinics or nursing homes, private big hospitals, AYUSH physicians and clinics, and chemists and pharmacists. The other categories encompass doctors in mobile vans, traditional healers (jhola-chhaap doctors [informal providers], dais [traditional midwives], etc), and any other specified sources. In inpatient care, the public category includes PHCs, CHCs, and government hospitals (eg, subdistrict hospitals, district hospitals, and medical college and tertiary hospitals). The private category comprises private nursing homes; private large hospitals; and NGOs, trust hospitals, and charitable hospitals. The other category encompasses any other specified sources. The percentages do not add up to 100% as multiple responses per household were permitted. Data from the Citizens' Survey (2023) conducted by this Commission. Note: denominators are the total number of households with outpatient or inpatient visits, respectively. ASHAs=accredited social health activist. PHCs=primary health centres. CHCs=community health centres. AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. UHC=universal health coverage. NGOs=non-governmental organisations. Figure created with Datawrapper.de.

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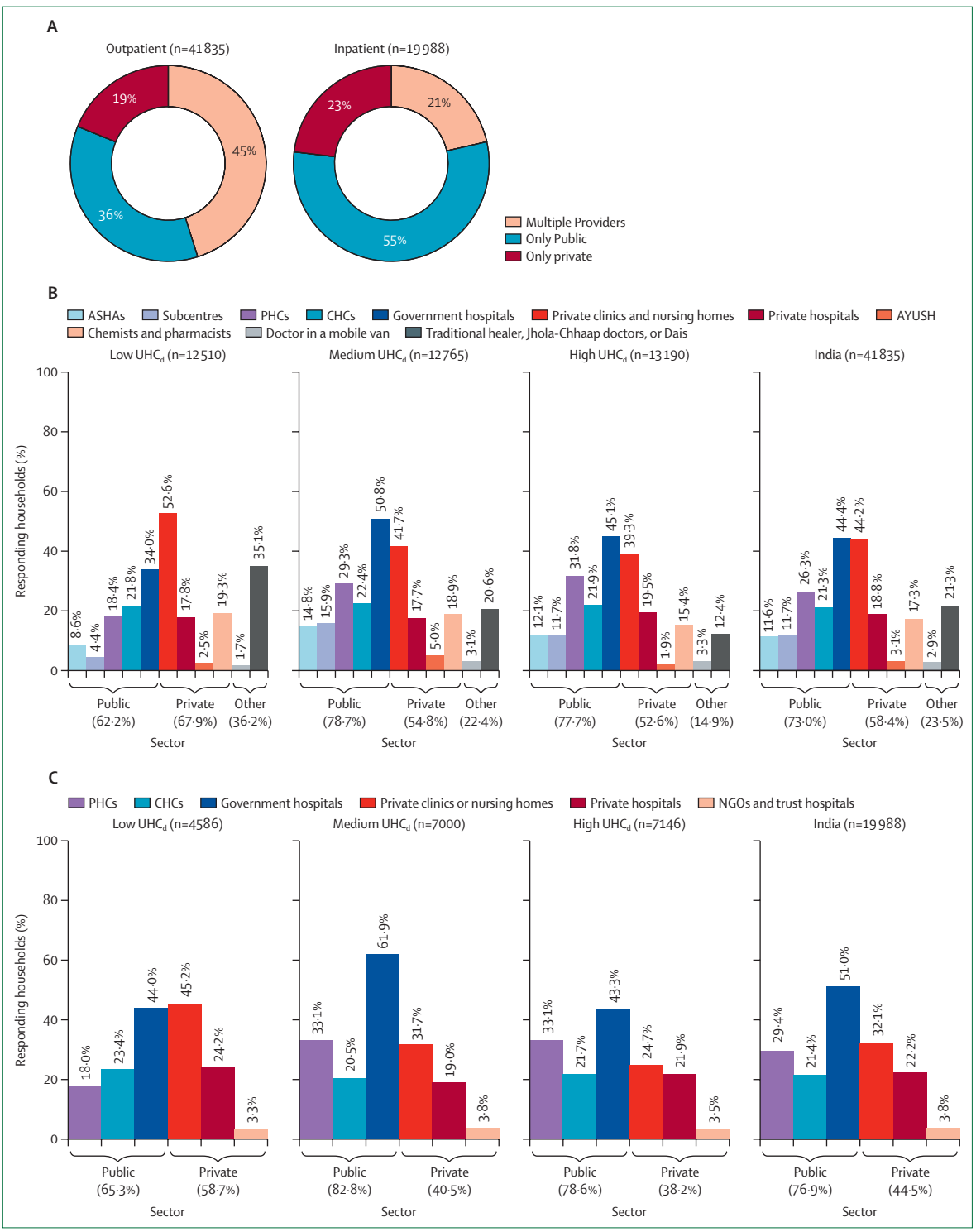
which require early detection, ongoing management, and coordinated support. Most patients, especially those who belong to lower-income households, often go undiagnosed for extended periods, only being detected when they evolve into complications, leading to increased health-care costs and worse health outcomes. India has seen notable improvements in service availability for these conditions; for instance, screenings for major chronic diseases have increased by 29 times between 2019–20 and 2025–26 (as of October, 2025, 392 million



people have been screened for hypertension, 390 million people have been screened for diabetes, 330 million people have been screened for oral cancer, 154 million people have been screened for breast cancer, and 81·5 million people have been screened for cervical cancer). However, gaps persist. A nationwide facility-readiness study showed that, in 2021, while the NP-NCD was being implemented in 72·8% of community health centres and 86·8% of district hospitals, only 1·1% of rural public sector facilities and 9% of urban private sector facilities at the primary care level had all of the essential technologies and medicines to manage these non-communicable diseases.[126] As of October, 2025, using the Open Data Toolkit, only 18% of public sector facilities scored 80% or above on their self-assessment for meeting IPHS norms, whereas 43% of facilities scored less than 50%. Additionally, only 20% of AAMs have been certified by the National Quality Assurance Standards. When services for chronic disease management are not accessible at the primary care level, people have to seek care at hospitals. For many, this means travelling longer distances, losing daily wages, and incurring additional costs. Consequently, many people discontinue, delay, or forego care, as evident in care cascades that show high rates of loss to follow-up and failure of care to control these conditions.[127–129] For example, according to the National Non-Communicable Disease Monitoring Survey (2017–18), only 28% of people who had hypertension were aware of their condition, 14·5% were on treatment, and only 12·6% had their hypertension under control.[127] In a recent national survey of diabetes in people aged 45 years and older, only 60% of the estimated 50 million people with diabetes were aware of their condition and less than half of those with diagnosed diabetes had achieved glycaemic control.[93] Care gaps are the largest for mental health conditions. For example, less than 2% of people aged 60 years and older with depression in the Longitudinal Ageing Study in India (2017–18) received treatment;[101,130] more than 70% of people with severe mental disorders in 2015–16 had not received any care from the health system in the previous 12 months;[131] and there are virtually no services for the long-term care of people with dementia in the country.[132]

The new AAMs (with 180 906 operational facilities, as of October, 2025) have been a notable step towards providing a comprehensive care package at the primary care level; the District Case Studies (2023) consistently found positive responses to their introduction, particularly the availability of local community health officers and non-communicable disease screening. An evaluation in 2023 showed a significant, positive impact of AAMs and community health officers on health outcomes for people with non-communicable diseases,[133] and qualitative assessments show that communities value AAMs' expanded services, especially for non-communicable diseases, and appreciate the responsiveness of AAM teams.[134] government data also show a considerable increase in the utilisation of AAMs, with patient volume increasing from 135 million patients in 2019–20 to 785 million patients in 2025–26.

### *A large proportion of the population seeks care from both public and private sector providers and bypasses primary care providers*

In India's pluralistic health system, patients commonly access services from both public and private sector providers. This reflects both structural realities and patient preferences for availability, timeliness, and perceived quality. The Citizens' Survey (2023) reported that 45% of all households sought outpatient care from both public and private sector providers. 58% of all outpatient consultations are in the private sector, reaching two-thirds of the sampled households in low $UHC_d$ districts (figure 10). These findings align with other national and State-level studies, showing that the majority of Indian households seek care from the private sector for outpatient care.[34,116] However, 36% of households solely use the public sector for outpatient consultations, and this rate rises with the $UHC_d$ index, while only a fifth of households nationally use only the private sector. For inpatient care, 55% of households were solely using the public sector, similar to existing evidence,[34,58] with larger proportions recorded for higher $UHC_d$ districts (figure 10). There are large State-level variations in public versus private sector use, with public sector use being the lowest in the States of Bihar, Jharkhand, Madhya Pradesh, and Uttar Pradesh, and the highest in the northeastern States. Households in the lowest income quintile use the public sector for both outpatient and inpatient care more frequently than those in the highest wealth quintiles.[34,58] The Citizens' Survey (2023) found that two-thirds of households nationally bypass primary care facilities in the public sector to seek care from hospitals. Stated preferences align with these patterns of bypassing. The majority of respondents in the Citizens' Survey indicated a preference for public sector providers, with 65·3% favouring public sector providers for outpatient care and 72·6% for inpatient care for future health-care visits (figure 11). However, 56·7% of respondents who favoured the public sector preferred public hospitals for outpatient care rather than primary care providers (figure 11), which is similar to patterns of public sector primary care bypassing that has been reported by several other studies.[135–137] Although bypassing primary care raises efficiency and continuity-of-care concerns, it also highlights the adaptive behaviour of households in navigating service availability. There is a clear gradient across low, medium, and high $UHC_d$ districts, with more people preferring public sector primary care providers for outpatient care in high $UHC_d$ districts (figure 11).

*Although the public sector has improved the provision of drugs and diagnostics in recent years, there continues to be substantial use of private sector providers*

Public sector facilities are mandated to provide essential medicines free of charge through the Free Medicines Initiative. As of 2025, 106 subcentres, 172 primary health centres, 300 community health centres, and 699 district and subdivisional hospitals implemented the Free Medicine Initiative. This is supplemented by the Jan Aushadhi programme, which currently offers 2110 medicines and 315 consumables through a network of almost 17 000 stores. The government regulates retail prices in the private sector of all medicines on the essential drugs list and monitors those of non-scheduled drugs to control excessive price increases.[115] There is wide variability in the availability of medicines across districts. However, some studies undertaken between 2018 and 2020 reported that only 18–42% of essential medicines were available, with even lower rates in primary care facilities.[116,138,139] A 2018 survey reported that the Jan Aushadhi stores had only 47% of the essential medicines, and around half were out of stock for up to 6 months.[139,140]

More recent studies show mixed but improving availability tied to digital tracking and procurement reforms in the Drugs and Vaccine Distribution Management System, and substantial improvements in States with stronger governance and semiautonomous medical services corporations.[140] Simultaneously, there are an estimated 800 000 private pharmacies across the country that provide a range of medicines.[141] In 2018–22, around 90% of all medicines were bought from the private sector;[115] even among households who sought care from the public sector, 72% bought their medicines from private pharmacies, leading to high OOPE.[138,139,142] A recent development has been the increasing use of e-pharmacies. The Citizens' Survey (2023) shows that

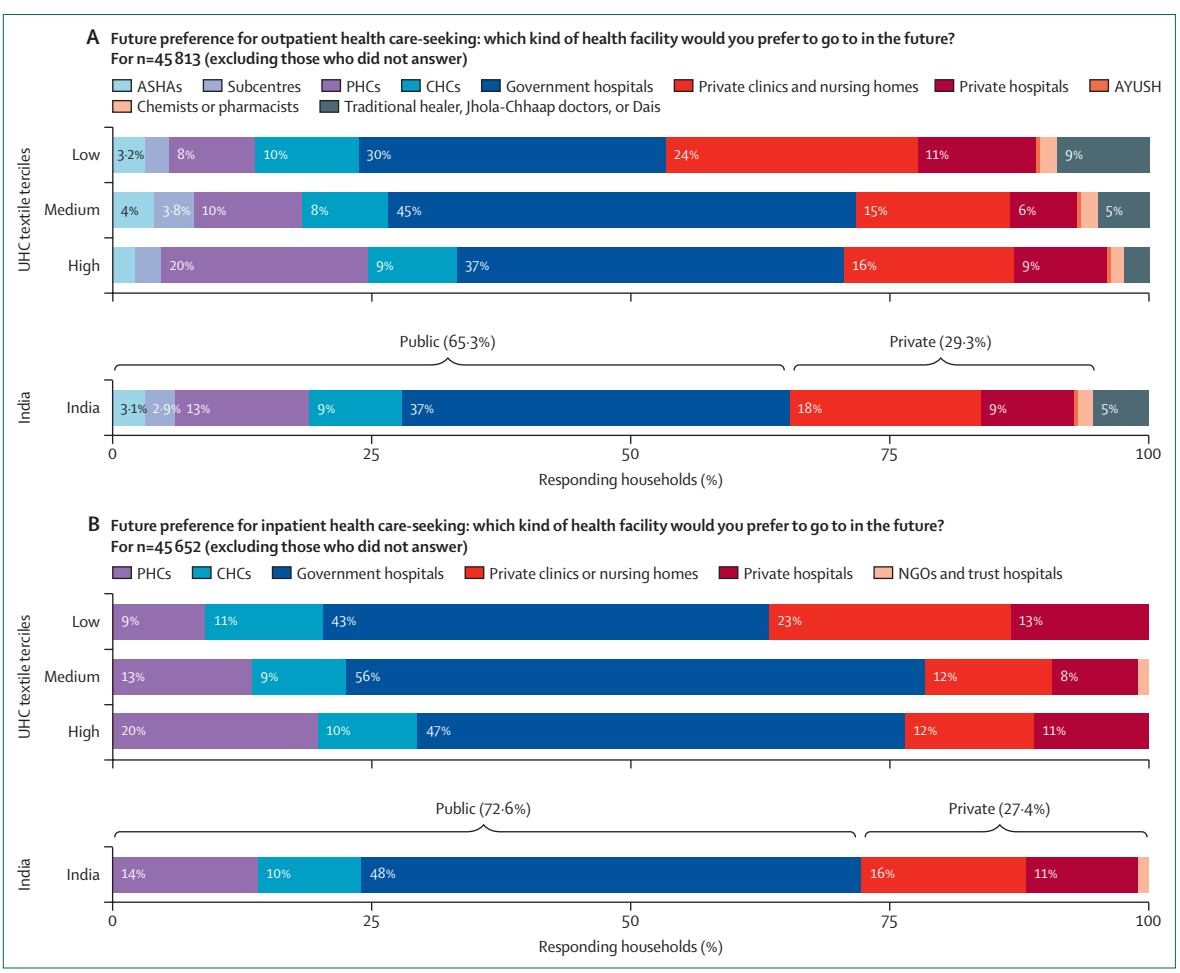



***Figure 11:*** **Stated preferences by households for outpatient and inpatient providers for future health-care visits**
Future preferences for outpatient (A) and inpatient (B) health care-seeking. Public sector providers include ASHAs, subcentres, public health centres, community health centres, and government hospitals. Private sector providers include private clinics, private hospitals, AYUSH clinics, and private chemists. Note: other providers were not considered due to a very small sample size. Data from the Citizens' Survey (2023) conducted by this Commission. ASHAs=accredited social health activists. PHC=primary health centre. CHCs=community health centres. AYUSH=Ayurveda, Yoga, Unani, Siddha, and Homeopathy. NGO=non-governmental organisation. UHC=universal health coverage. Figure created with Datawrapper.de.

55% of households used online platforms to access medicines. Together, these purchases from the private sector account for almost two-thirds of household health expenses (section 4).[138,143,144]

The Free Diagnostic Services Initiative (2015) supports States in providing an assured minimum package of diagnostic and imaging services at public sector facilities. As of 2025, 14 subcentres, 63 primary health centres, 97 community health centres, and 245 subdivisional and district hospitals implement the Free Diagnostic Services Initiative. The roll-out of AAMs has seen an expansion of point-of-care testing and diagnosis,[145] and the National Essential List of Diagnostics adopted in 2019 has been a breakthrough step in defining and standardising diagnostic services for citizens.[146] However, these efforts are still nascent, and their effect on improving the substantial shortfalls of essential diagnostic tests in public sector facilities remains to be confirmed.[147] In the Transform Rural India Foundation survey (2023), only 13·8% of respondents reported having access to essential diagnostic services in their primary care facility. Many patients forego diagnostics (consequently delaying disease detection) or incur substantial expenses and financial hardships to seek them in the private sector or at higher-level health facilities.[147,148] The District Case Studies (2023) corroborate this evidence: respondents, especially those in low and medium $UHC_d$ districts, identified the poor availability of medicines and diagnostic services as a major barrier to health-care access.

### UHC goal 3: quality of care

*Quality of care is poor across the health system*

Model-based estimates presented in the 2021 Economic Survey[149] drawing from *The Lancet Global Health* Commission on high-quality health systems[150] suggest that, in 2018, about 1·6 million deaths in India were attributable to poor quality of care—roughly twice the number attributed to non-utilisation of services.[150,151] These observations mask wide regional disparities and condition-specific differences. There have been impressive improvements in health-care use for antenatal care (UHC goal 1), with women with lower incomes and those living in rural areas making the fastest gains in antenatal care access compared with those with higher incomes and those living in urban areas. However, evidence shows low adherence to evidence-based guidelines (eg, childbirth protocols and clinical diagnostics) in several States, reinforcing the need to strengthen quality across service types, not only coverage.[150,151] Notably, a substantial proportion of facilities in which childbirth occurs (especially in facilities below the district hospital level) are not fully equipped for comprehensive emergency obstetric and neonatal care,[152–154] limiting the potential to reduce maternal and neonatal mortality.

Most emergency obstetric and neonatal care is provided by private hospitals, and most obstetricians work in the private sector.[155,156] Simultaneously, there are wide variations in caesarean section rates across States and sectors. For example, 22 States have districts with caesarean section rates less than 10%, whereas eight States have districts that report rates above 50%, potentially indicating instances of inadequate care, women's preferences, and supply-induced demand.[157] Furthermore, although demand-side schemes such as the Janani Suraksha Yojana have improved use of maternal health-care services, their effect on maternal and newborn mortality is uncertain due to inadequate care quality, especially in areas with poor facility capacity.[158]

Even when adequate infrastructure and providers are present, evidence indicates that there are challenges around provider competence, with both public and private sector providers often making wrong diagnoses and giving incorrect and unnecessary treatments.[116,159–161] For example, the India Health Systems Project's (2020) clinical vignette data show that only 58% of providers in both sectors correctly diagnosed the most common illnesses, namely tuberculosis, pre-eclampsia, childhood diarrhea, acute coronary disease, and asthma.[58] Only 2·2% of providers prescribed the correct treatments based on recommended guidelines without any unnecessary drugs, while 40% of providers prescribed only unnecessary or incorrect drugs, such as antibiotics for pre-eclampsia or antacids for tuberculosis.[58]

Other clinical vignette-based assessments of mid-level providers in Chhattisgarh (2020–21) showed average performance scores of 50% for community health officers, 63% for rural medical assistants, and 68% for medical officers, with community health officers showing clinical competence in managing non-communicable diseases and some infectious diseases.[162] Similarly, a 2023–24 vignette survey on neonatal sepsis care revealed that although over half of paediatricians and neonatologists used sepsis screening tests, fewer than 10% discontinued antibiotics within 72 hours despite clinical indications to do so, underscoring weak antibiotic stewardship.[163] Other studies using standardised patients presenting the most commonly prevalent conditions have found substantial know–do gaps, indicating that even when providers knew the correct diagnosis or treatment, they often did not prescribe the right treatments, and their prescription practices were influenced by financial motivations and patient preferences.[161]

Quality of care is a concern particularly for people from disadvantaged social groups.[164,165] There are also disparities in the quality of care offered by public and private sector providers in urban and more prosperous areas compared with rural and less prosperous areas.[58,164] Similarly, people from lower socioeconomic backgrounds and marginalised castes and tribes are more likely to receive low-quality antenatal care,[166] and are less likely to be tested and treated for the most common non-communicable diseases compared with people from higher socioeconomic

backgrounds and the general population.[129,167,168] Geographical areas where the public sector is of higher clinical quality also have higher quality private sector providers, indicating that a well functioning public sector can have beneficial effects for the whole health system.[164] The widespread prescription of incorrect and unnecessary drugs leads to delayed diagnoses, increased disease severity, preventable hospitalisations, worse health outcomes, and AMR.[150] Apart from the wastage of scarce resources of the health system as a whole,[150] such poor-quality care also contributes to the high levels of OOPE that disproportionately affect socioeconomically disadvantaged groups.[32,138] The government's programmes on care quality (eg, the LaQshya Initiative, the National Quality Assurance Standards, and the Surakshit Matritva Aashwasan scheme) and chronic disease screenings through AAMs aim to address these inequities.

*Patient satisfaction and trust in the health system are high*

The Citizens' Survey (2023) observed that most respondents reported high levels of satisfaction with both outpatient and inpatient providers in the context of the most recent consultation or admission in their household, with over 86% of users of both outpatient care and inpatient care reporting that they will use the same provider again and recommend them to others. The overall levels of satisfaction were similar in both sectors, but respondents reported marginally higher satisfaction with private sector providers than with public sector providers across different areas of patient experience, similar to other recent evidence (figure 12).[58,169] Other studies, including the India Health Systems Project (2020) and the People's Voice Survey (2023), have shown similar results on patient satisfaction, with patients reporting high overall satisfaction despite poor care competence and higher satisfaction ratings for private sector providers versus public sector providers despite incurring more OOPE (section 4).[116,118,170] Low expectations in the general population and information asymmetry might be driving these apparently discrepant findings, as has been reported in studies from other LMICs.[150,171] The Citizens' Survey also showed higher satisfaction rates in low $UHC_d$ districts compared with medium and high $UHC_d$ districts. Thus, these high satisfaction levels might be because patients are often unable to judge clinical competence and instead use other signals for quality, such as convenient timings and locations, prescriptions of drugs, and time spent with providers.[58,172]

An important measure of health system quality is how the general public perceive the health system.[150,173] Even in this regard, the People's Voice Survey found that 67% of respondents perceived that the health system is getting better and 76% felt that the government takes into account the public's opinion in health system decisions.[118] Respondents in the District Case Studies (2023) expressed trust in public sector providers—where they

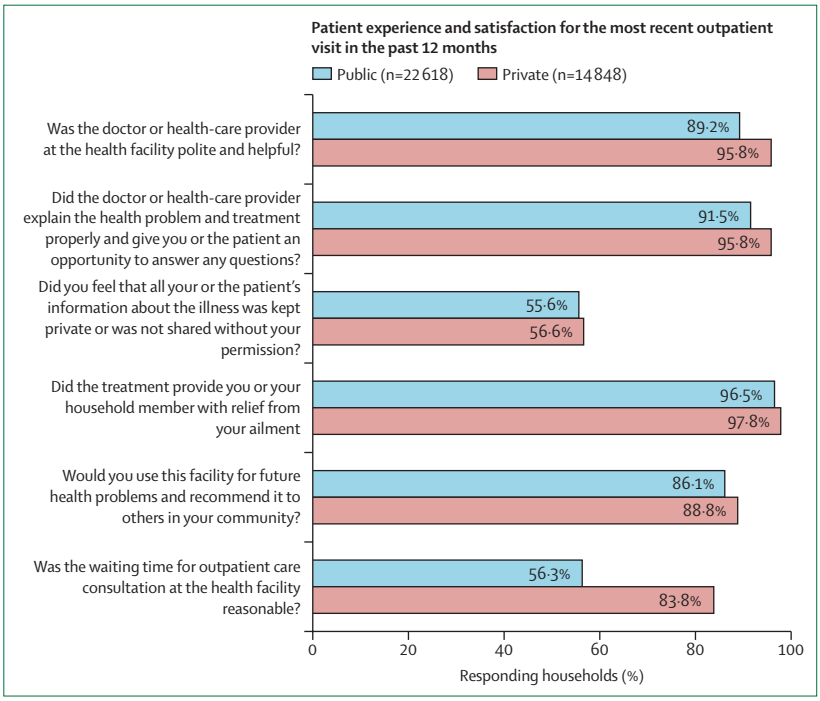



***Figure 12:*** **Experiences with the most recent outpatient consultation**
Data from Citizens' Survey (2023) undertaken by this Commission. Note: The denominator is outpatient consultations (N=41 835). These consultations did not include the others category of providers (N=4369). Figure created with Datawrapper.de.

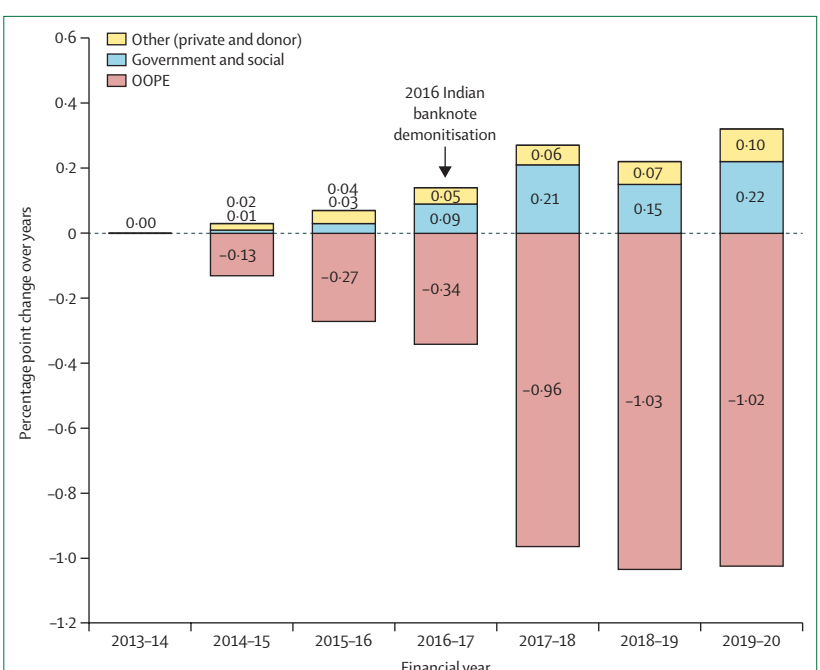



***Figure 13:*** **Percentage point change in sources of total health expenditure (2013–14 to 2019–20)**
Data from the National Health Accounts (2013–14 to 2019–20). The social security expenditure:GDP ratio is adjusted downwards to ensure that the total adds up to the total health expenditure:GDP ratio to eliminate the potential for double counting. GDP=gross domestic product. Figure created with Datawrapper.de.

were available—across high, medium, and low $UHC_d$ districts. The Global Listening Project reported that, in 2023, the vast majority of respondents trusted their local public or private sector health-care provider (84%) and local (76%) and national (80%) health institutions to act in their best interests during a crisis; 84% of respondents reported that their confidence in the health system had increased after the COVID-19 pandemic.

### UHC goal 4: financial risk protection

*OOPE has reduced, but many people still face financial hardships when accessing care, and several might be foregoing care*

According to the National Health Accounts, OOPE has substantially decreased (figure 13; section 2), although it is still far higher than the 15–20% level acceptable for UHC based on WHO recommendations. Notwithstanding the increase in GHE in absolute terms controlling for inflation, before the COVID-19 pandemic, THE as a proportion of GDP had, unusually, declined by 0·7 percentage points, decreasing from 4% in 2013–14 to 3·3% in 2019–20. The decline in THE has been primarily driven by a steep fall in OOPE by 1 percentage point (as a proportion to GDP), declining from 2·57% of GDP in 2013–14 to 1·55% of GDP in 2019–20, which in turn is driven by a 0·2% increase in GHE, a 0·1% increase in the contribution of private health insurance, and a large 0·7% decrease over the same period in the total amounts being expended by households on health care, which is not attributable to any increases in the pooled sources of funds for health care.[32] An analysis of successive NSS data (2014–18) and the latest Household Consumption Expenditure Survey data (2022–23) suggests three possible reasons for this reduction in expenditure. First, there has been an increase in the use of public sector facilities by about 5% between 2014 and 2018,[174] although it is notable that OOPE increased by 10%, from INR 2336 per capita in 2013–14 to INR 2572 in 2016–17, rather than declined. OOPE fell by 18%, declining to INR 2097 per capita only in 2017–18 when new NSS data were made available.[25] Second, there has been considerable improvement in the coverage of government-financed health insurance schemes, and NSS data suggest that people with government health insurance incur less OOPE accessing any type of provider compared with people not covered by government health insurance.[174] Third, NSS data show that 12% of people who fell sick did not seek any medical advice in 2017–18.[34] The proportion of people reported to be sick also reduced from 105 people per 1000 population in 2014 to 79 people per 1000 population in 2017–18, and hospitalisation rates reduced from 37 hospitalisations per 1000 population in 2014 to 28 hospitalisations per 1000 population in 2018.[175] These data suggest that people might be foregoing care because, even though the cost of treatment in public sector facilities is lower than in private sector facilities, the cost is still considerable for the poorest populations, and they bear a greater burden of OOPE (as a percentage of annual per capita consumption expenditure).[176]

In 2019, an estimated 17·5% of households incurred catastrophic health expenditures (ie, OOPE exceeding 10% of a household's annual consumption expenditure), with some State averages as high as 24%.[34,138] Around 8% of Indian households were impoverished due to OOPE exceeding 25% of their annual consumption expenditure.[34] The Citizens' Survey (2023) shows that, unsurprisingly, private sector services incur four-fold higher OOPE for outpatient consultation (INR 874 in public sector services *vs* INR 3537 in private sector services for the most recent consultation) and 14 times more for hospitalisations (INR 1937 in public sector facilities *vs* INR 27034 in private sector facilities for the most recent admission). Notably, citizens incur OOPE at public sector providers for inpatient and outpatient care, even though they are fully funded by the government. Other studies from different States have reported similar findings.[34,116,138] People incurred lower OOPE in high $UHC_d$ districts, suggesting that better $UHC_d$ performance is associated with lower OOPE (figure 14). Spending on medicines accounts for 56% of outpatient OOPE and diagnostics accounts for 27% of outpatient OOPE, corroborating other evidence (figure 14).[138,143,144] Similar data have also been reported by the recent Household Consumption Expenditure Survey (2023–24), which shows that medicines and diagnostics account for a large proportion of total outpatient care expenses.[177] In the District Case Studies (2023), respondents across districts consistently identified high OOPE as a key barrier to achieving UHC. Respondents perceived a range of factors as the main causes of OOPE: the cost of non-communicable disease care and private sector facilities; transportation costs to seek care; and expenses to access basic curative services, drugs, and diagnostics.

Up to two-thirds of households with a person with a chronic disease report catastrophic health expenditures,[178,179] reaching 90% among households in which a member had cancer.[128,178] Poorer households are disproportionately affected by OOPE; up to 60% of households from the poorest income quintile in some States face catastrophic health expenditures,[180] and the effect of these expenditures is substantially higher for people whose incomes are below the poverty threshold for whom OOPE far exceeds the benchmark of 10% of household annual consumption expenditure.[179] Household savings were the major source for financing OOPE (87% of households for outpatient health care and 79% of households for inpatient health care), followed by borrowing money (7% of households for outpatient health care and 14% of households for inpatient health care). The District Case Study (2023) respondents in the high and medium $UHC_d$ districts observed access to health insurance as helping reduce financial burdens, whereas those in low $UHC_d$ districts identified local funding support, such as revolving funds (community-based microlending) or loans, as important support. These

findings of the Citizens' Survey are corroborated by other studies,[181] indicating the inadequacies in coverage of public sector services and the benefits design of health insurance driving OOPE.

*Health insurance coverage has increased and is dominated by government health insurance*

Nationwide, health insurance coverage has increased substantially. In the Citizens' Survey (2023), 28% of households reported having government health insurance coverage (with just over 5% reporting voluntary insurance), which represents a doubling of coverage since 2018–19 (14%), pointing towards the success of efforts in expanding the AB-PMJAY and its State equivalents. Although this figure is still much lower than the planned targets of the AB-PMJAY (40% of households or 600 million beneficiaries) and even higher targets by some State-level programmes, an encouraging finding is the higher government insurance coverage among the lowest-income households (33%) than among higher-income households

| | | Mean health expenditures (INR) by components on the most recent outpatient visit in the last 12 months | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Consultations | Medicines | Diagnostic tests | Transportation or non-medical expenditures | Total health expenditure | 95% CI | Sample (n) |
| UHC index terciles | Low | 164·67 | 1295·6 | 463·86 | 170·91 | 2095·04 | 1991·81–2198·28 | 12510 |
| | Medium | 176·98 | 888·09 | 320·98 | 166·67 | 1552·72 | 1467·62–1637·83 | 12765 |
| | High | 312·63 | 861·10 | 418·4 | 174·94 | 1767·07 | 1677·39–1856·75 | 13190 |
| Health sector | Public | 81·47 | 426·95 | 224·85 | 140·42 | 873·70 | 846·68–900·72 | 22618 |
| | Private | 464·08 | 2060·3 | 775·07 | 237·29 | 3536·73 | 3403·42–3670·05 | 14848 |
| | Other | 130·05 | 427·86 | 97·28 | 46·99 | 702·18 | 649·61–754·75 | 4369 |
| India | | 222·34 | 1006·75 | 406·81 | 165·05 | 1800·95 | 1749·62–1852·27 | 41835 |

| | | Health expenditures (INR) by components on the most recent inpatient hospitalisation in the last 12 months | | | | |
|---|---|---|---|---|---|---|
| | | Hospitalisations | Transportation or non-medical expenditures | Total health expenditure | 95% CI | Sample (n) |
| $UHC_d$ index terciles | Low | 9376·92 | 506·67 | 9883·59 | 9162·31–10604·86 | 4586 |
| | Medium | 6650·04 | 344·51 | 6994·56 | 5467·28–8521·84 | 6999 |
| | High | 5741·13 | 339·08 | 6080·21 | 5348·25–6812·17 | 7146 |
| Health sector* | Public | 1694·74 | 242·54 | 1937·29 | 1816·69–2057·88 | 15600 |
| | Private | 26212·56 | 821·88 | 27034·45 | 24286·83–29782·07 | 4386 |
| India | | 7074·71 | 369·80 | 7444·51 | 6817·59–8071·44 | 19988 |

**Component-wise health expenditures across sectors for the most recent outpatient visit in the past 12 months**

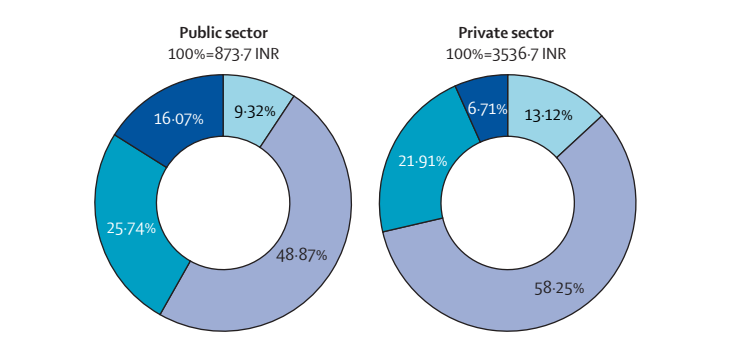



***Figure 14:*** **Composition of out-of-pocket expenditure among households for outpatient and inpatient care, for public *vs* private, and $UHC_d$ index tertiles**
Data from the Citizens' Survey (2023) undertaken by this Commission. *Other providers were not considered due to a very small sample size. Components of medical expenditures were not collected for inpatient hospitalisations due to recall bias associated with billing over an extended duration of recall period. $UHC_d$=universal health coverage performance performance at the district level. Figure created with Datawrapper.de.

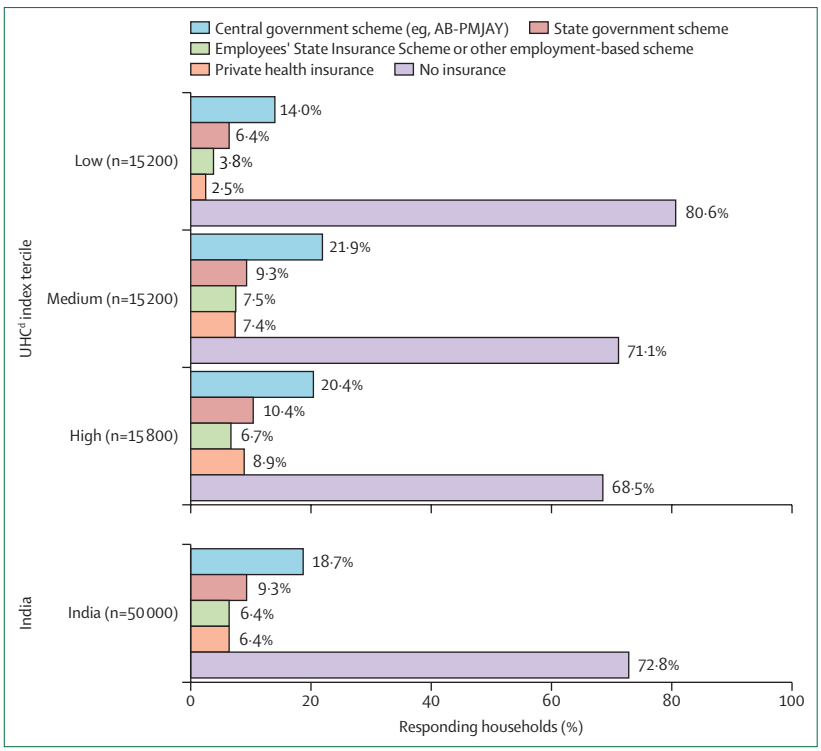



***Figure 15:*** **Health insurance coverage among households**
Percentage of households responding yes or no to: do you or your household member use or have ever used any of the following health insurance or payment schemes? Percentage by schemes are not additive due to multiple responses. Data from the Citizens' Survey (2023) undertaken by this Commission. Figure created with Datawrapper.de.

(20%), aligning with the socioeconomic criteria for coverage of these schemes, corroborating other evidence that shows higher coverage among lower-income households, those with lower educational attainment, socially disadvantaged castes and tribes, and older adults.[182,183] However, the Citizens' Survey data show lower levels of coverage in districts with low $UHC_d$ (19%) versus those with medium $UHC_d$ (29%) and high $UHC_d$ (31%; figure 15). Other studies have also revealed inequalities in insurance coverage and utilisation. For example, government health insurance coverage and utilisation were considerably lower among women than men[182,184] and among rural residents than urban residents.[183] The majority of insurance utilisation was for private hospitalisations.[184] Because of substantial differences in the availability of public and private hospitals between States, utilisation rates in States such as Uttar Pradesh and Bihar were much lower than in more developed States such as Kerala, Tamil Nadu, and Himachal Pradesh.[15,184] Furthermore, historically marginalised castes and tribes remain underserved by government health insurance compared with other population groups.[184]

Despite these levels of insurance coverage, only 2% of hospitalisations reported in the Citizens' Survey in public sector facilities and 7% of hospitalisations in private sector facilities were partly or completely covered by insurance, in line with other estimates.[34,58,144] Additionally, in most government and voluntary insurance, benefits packages are thin—there is virtually no coverage for outpatient care, medicines, and diagnostics, which constitute the majority of OOPE.[143] Furthermore, even when people have insurance, there is low utilisation of benefits. A recent study found that, in 2023, out of all eligible beneficiaries, around 40% were unaware of the AB-PMJAY, and among those who were aware, 22% did not know that they were eligible for the scheme.[185] Consumers across all income groups are unable to use their government or commercial insurance due to confusion about complex rules or lack of understanding of the enrolment and claims processes, and are often denied reimbursements they are entitled to.[186–188] A review in 2021 showed that, although different Central and State government insurance programmes increased utilisation of health-care services by the beneficiaries, there was no conclusive evidence for the reduction in OOPE or financial hardships.[26,189] More recent studies in 2023–24 have shown mixed findings. Although one study did not find any improvement in financial protection with AB-PMJAY enrolment,[190] another study found a 13% reduction in OOPE and a 21% reduction in catastrophic health expenditures.[191]

## Section 4: health system-related drivers of India's UHC achievements and challenges

In this section, we analyse how a range of attributes of the Indian health system interact with each other and drive, or hold back, India's path to UHC.

### India's achievements in improving health outcomes, particularly maternal and child survival, can be attributed to growing public investments and improvements in social determinants of health

Most health policies by successive governments and the majority of services provided by the public sector delivery system have historically been directed towards RMNCH and infectious diseases (figure 2).[192] The large, community-based workforce of auxiliary nurse midwives and ASHAs has historically focused on interventions that promote safe motherhood and early childhood survival, contributing to the improvements noted previously,[193–195] although their roles have substantially expanded over time to include services related to non-communicable diseases, mental health, elderly care, palliative care, and other chronic conditions. Simultaneously, demand-side financing programmes such as the Janani Suraksha Yojana (which incentivises women for institutional births) and the AB-PMJAY (which pays for inpatient care) have contributed to improved access to hospital care.[189,191] The eradication of polio through the Pulse Polio Programme and, most recently, India's COVID-19 vaccine drive are salutary examples that mobilised the entire health-care delivery system, engaged communities, and leveraged digital technologies to vaccinate the majority of the

population.[196,197] Over the past decade, another major contributor to strengthened service capacity has been improvements in health personnel numbers (figure 5).[50,198] The introduction of community health officers, drawing on AYUSH physicians and nurses, to lead AAMs has also expanded the health workforce at the primary care level. Improvements in overall economic status, educational attainment, women's empowerment, and basic infrastructure, along with more proximate determinants such as water, food security, and sanitation, have also contributed to steady reductions in mortality and increased life expectancy.[199,200] Administrators and health-care providers in the high and medium $UHC_d$ districts identified a strong education system and sanitation as the primary contributors to improving health outcomes (District Case Studies, 2023).

### Historically, government spending on health has been limited, which, accompanied by inefficiencies and operational challenges, has slowed systemic reforms

Although GHE in India remains lower than many global peers, the past decade shows a trajectory of improving public financing. GHE as a proportion of general government expenditure has risen between 2000 and 2021 to constitute a 20-percentage point higher share of THE (sections 2 and 3). The Central government budget (2025–26) allocates 0·27% of GDP to health, an 11% increase since the previous year. Furthermore, key flagship programmes have seen large increases over the past decade (eg, NHM expenditures have grown by 168% between 2014–15 and 2024–25). Importantly, the gap between projected budgetary demands from the MoHFW and actual allocations has narrowed substantially, with government allocations now covering about 87% of projected requirements.[201] Since 2018–19, a health and education tax has been levied on income, with 25% earmarked for health; however, in 2024–25, transfers are projected to reach only 17% of tax collections.[202] Furthermore, the Economic Survey of 2023–24 shows that, adjusting for inflation, the Central government's spending has remained relatively static (0·30% of GDP in 2018–19; 0·28% of GDP in 2023–24),[203] and although the National Health Policy (2017) recommends that States allocate over 8% of their budgets to health, States have allocated about 6% on average.[202] These shortfalls in government spending have limited the health system's full potential to achieve UHC. Low government expenditure has also weakened the capacities of institutions, especially at decentralised levels, that are meant to govern the health system (section 4). Furthermore, national GHE per capita masks the large variations across States and union territories, from INR 701 per capita in Bihar to INR 7200 in Mizoram (figure 16).

A modelling study of this Commission indicates that, although most States currently spend less than the estimated benchmark needed for UHC, several are close to, and a few even exceed, these estimates.[15] However, none of these States have successfully attained UHC, indicating inefficiencies in the allocation and utilisation of government funds.[15] Studies on health system efficiency report that health outcomes in most States are lower relative to the inputs used and that they have achieved lower levels of improvements in health indicators than their potential.[204,205] The rigid line-item budgets that are fragmented into multiple different programmes are an example of allocative inefficiency, as these prevent the flexible and decentralised reallocation of resources to where they are most needed, leading to underfunding in crucial areas to respond to local needs. The fragmentation of government funds into programmes also entails parallel and duplicative administrative structures, processes, and personnel (sections 2 and 4).

Several studies have also reported low absorptive capacity and low utilisation of allocated Central government health budgets by States and local governments.[205,206] For example, during 2019 to 2024, only 67% of funds allocated to AB-PMJAY were used, and only 35% of PM-ABHIM was utilised in 2022–24.[202] In 2015–2017, only 55–59% of NHM funds were utilised nationwide due to delays in the release of funds from State treasuries caused by complex administrative procedures and rigid line-item budgets.[207,208] More recently, with direct digital transfers, disbursement timelines have shortened to weeks instead of months in many States, and NHM utilisation has improved considerably (with improvement reaching close to 99%), along with growth of 102% between 2014–15 and 2024–25 in NHM budget releases from the Central government to State governments.[202] The utilisation levels were marginally lower in the group of States with poor health achievements (classified as high-focus States by the NHM) than relatively better performing ones; the States with poor health achievements comprise the same States where most low $UHC_d$ districts are clustered. Utilisation varied from a low of 45% in Bihar and 53% in Uttar Pradesh to 80% in Tamil Nadu and Gujarat.[207] More recent studies have also highlighted the problems of low absorptive capacities, which are closely linked with other indicators of governance capacities.[209,210] These inefficiencies, particularly in low $UHC_d$ districts and resource-poor States, are deeply interlinked with chronic shortages of trained human resources—eg, providers and health administrators—perpetuating a vicious cycle of low absorptive capacities and underperformance. Inadequate staffing levels and competencies reduce service quality and patient satisfaction, undermining trust in the public sector health system and discouraging its use. This, in turn, weakens demand for services, reduces funding allocations, and exacerbates existing gaps in infrastructure and human resources. Similarly, ESIS, which insures lower-salaried organised sector workers, has historically had very low claims ratios

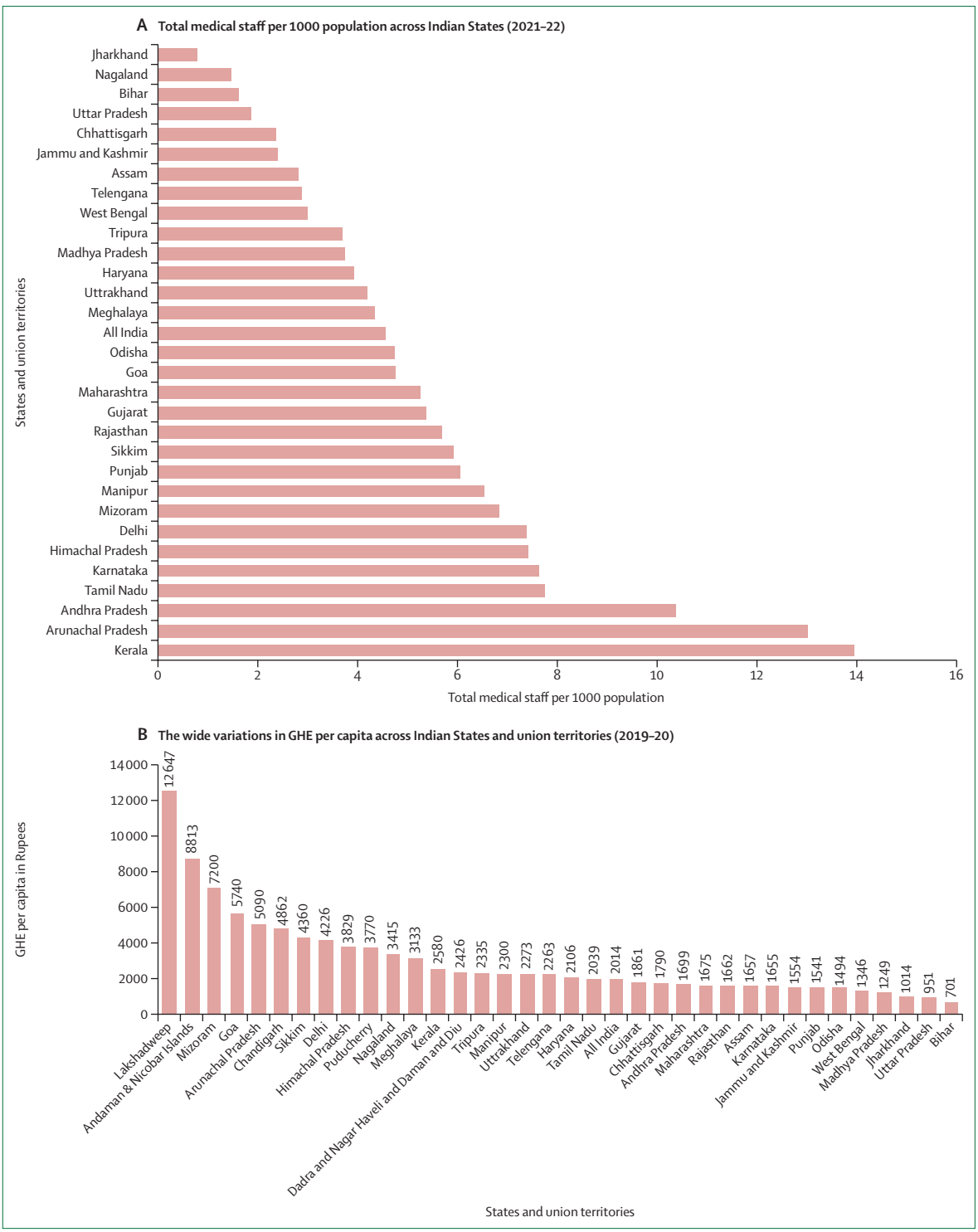



***Figure 16:*** **Health expenditures as proportion of gross domestic product and GHE across Indian States and union territories**
GHE=government health expenditure. Source: National Health Accounts 2019–2020.[32]

(<50%), indicating that the mandatory premiums the scheme collects are not used to provide health services to the beneficiaries. Instead, the scheme has built up a cash balance of over US$10 billion of unspent funds (the low claims ratio for ESIS has recently been addressed not by improving the ability of the scheme to provide services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but by permitting companies to reduce the annual contributions they make on behalf of their employees).[211,212] The public sector has historically faced inefficiencies manifested in the bypassing of primary care, delivery of irrational care, and skewed allocation of human resources of health. Although the government spends 56% of its current health expenditures on primary health care, most households bypass these facilities, instead going directly to more expensive hospitals or the private sector.[32]

Irrational care, including unnecessary medicines and elective caesarean sections, wastes the scarce resources of households and the health system. Inefficiencies in human resources of health are evident across the public sector-run health system. Clinical staff in the public sector spend a sizable proportion of their time on administrative tasks. For example, physicians in primary health centres spend an average of 10 hours per week (25% of their shifts) on non-clinical tasks, and many are not occupied for the full daily working period of centres. Yet, the India Health System Project (2020) reports that physicians spend only about 6–11 minutes per outpatient.[58] These inefficiencies assume even more importance given the shortages of doctors and specialists in the public sector and rural areas (section 2). Some regional studies on frontline workers have found that, although auxiliary nurse midwives are overworked, they spend only around 50% of their time on service delivery, and even though they spend most of their time on RMNCH services, antenatal care coverage is inadequate,[194] although these findings cannot be generalised for the whole country. Other areas of concern for efficiency, especially in the private sector, are minimal cost-control mechanisms, price regulations, and current incentives—both for providers and users—that encourage curative over preventive care and volume over value through hospital-based insurance and case-based and fee-for-service payments. If not controlled, health-care costs could become unsustainable for an economy such as India's, not to mention unaffordable for many citizens.

### The large and growing number of frontline workers and the presence of diverse medical systems are important assets; however, service delivery remains predominantly facility-based and oriented towards curative, doctor-led care

Although progress has been made in strengthening primary health care, gaps persist in aligning provider competencies with community health needs and in ensuring that care models move beyond a doctor-centric approach, towards more team-based, preventive, and comprehensive services. Global and Indian evidence suggests that non-physician providers can successfully perform several clinical functions that are traditionally handled by physicians and often display equal, if not better, competence for many primary care and public health services.[162,213,214] Furthermore, evidence also shows that AYUSH physicians, with their holistic approach to health, and non-physician workers, who are community-based, are more suited for comprehensive primary health care as communities trust, commonly seek care from, and often prefer these providers for their routine primary care needs.[170,215,216] The National Health Policy (2017) was a landmark policy that leveraged this large body of evidence to permit AYUSH physicians and nurses to manage AAMs as community health officers, and for AYUSH physicians to play the role of medical officers at primary health centres, which were previously reserved for MBBS doctors.[29,217] In as many as 18 Indian States, AYUSH physicians can also legally practice allopathy upon completion of State-determined bridge courses.[218] India has been a global leader in the deployment of non-physician frontline workers, but these efforts have fallen short of achieving their potential (section 2). Although community health officers and auxiliary nurse midwives have outreach and preventive care roles (eg, population-based screening and engagement in community-based platforms, respectively), they are predominantly facility-based. In contrast, ASHAs, with predominantly outreach and preventive care roles (section 2), are considered volunteers, with variable incentives and roles that are narrowly focused on RMNCH, although these roles are expanding with the government's focus on comprehensive primary health care. The District Case Studies (2023) consistently observed that the contribution and commitment of ASHAs was the most valued enabler towards UHC, along with teamwork with other community-level actors. Across different types of districts, ASHAs were highly motivated to serve their communities and to serve as a bridge to the health system, often travelling great distances despite poor transportation facilities in low-performing districts. They also reported inadequate training and support commensurate with responsibilities. Despite the policies to integrate AYUSH and offer it as a care option across public sector facilities and to promote non-physician primary care providers, the predominant MBBS doctor-centric delivery system has meant that these efforts are limited to the co-location of service or filling shortages, and there is disempowerment of these human resources of health due to a top-down, hierarchical power structure.[22,219,220]

Although recent efforts have sought to better align services with epidemiological trends and clinical standards, services often fall short of meeting people's needs or adhering fully to clinical recommendations. As noted previously, a substantial proportion of financial, human, and infrastructural resources are allocated towards curative services for acute health problems and vertical disease control programmes, in particular those targeting RMNCH and infectious diseases. AAMs represent a major new policy initiative towards primary health care for non-communicable diseases, including population-based screening and community outreach, and a referral system facilitated by linkages between different levels of care and telemedicine, as outlined in

the NP-NCD guidelines.[221] The introduction of AAMs intends to address the challenge that non-communicable disease services, which need long-term, citizen-centred, community-based holistic care, have been largely concentrated at hospitals, where the focus is on episodic care with medication.[126] Furthermore, although primary care providers are assigned population catchments, they face challenges, especially poorly aligned incentives, to undertake preventive work, regular screenings, and continuous, long-term, and citizen-centred care for the health and wellbeing of these catchments.

Childbirths—around a fifth of which will need emergency care and surgical capabilities—often take place in low-volume facilities that lack these services and struggle to safely perform even routine deliveries due to a lack of experience.[154,222,223] A 2023 study showed that 46·6% of newborn deaths and 56·3% of stillbirths are among women who were classified as low risk during their pregnancies.[154] Furthermore, between 1993 and 2021, the decrease in early neonatal mortality was considerably slower than in other stages of childhood.[224] Emergency obstetric and neonatal care is not available in many facilities, especially at decentralised levels, and there is often very little time or coordination for a mother to be transported to an adequately equipped facility when emergency skilled interventions are needed.[225] Although primary care facilities are best positioned to provide regular antenatal care, immunisations, and post-neonatal care, there is now clear evidence that reductions below a certain level of maternal and neonatal mortality ultimately need skilled obstetricians and infrastructure such as blood banks and neonatal intensive care units, which are not universally accessible at primary care facilities.[154,223,226] Thus, although maternal and child mortalities have decreased substantially, further reductions need transformation in service organisation. Role rationalisation across levels of care through service-delivery redesign, which has been demonstrated in Kenya, has recently been tried in Tamil Nadu and Meghalaya and offers encouraging models to address these challenges.[150,227,228]

Another challenge has been the gaps in deploying health interventions based on their effectiveness, epidemiological needs, and efficiency. Without such assessments, the interventions available in primary health care are often duplicative or irrational, leading to poor quality of care and inefficient use of scarce resources. Since its inception in 2017, the HTAIn has been undertaking systematic analyses to assess the effectiveness, value, safety, and economic implications of health-care interventions, technologies, and services, and its recommendations are helping address these gaps. For example, HTAIn was instrumental in introducing the rotavirus vaccine into India's Universal Immunization Programme based on the vaccine's cost-effectiveness and potential impact on reducing child mortality due to diarrheal diseases caused by rotavirus; it informed the use of bedaquiline for treating multidrug-resistant tuberculosis based on its clinical efficacy and economic evaluations; and it has guided policies on the optimal allocation of dialysis machines across various public sector facilities to make informed decisions about resource allocation within limited budget scenarios. Although the findings of the HTAIn are nascent, similar to several other countries, these findings could be promising for priority-setting, designing essential health benefits packages, and estimating efficiency and cost-effectiveness.[229–231]

### The health system faces fragmentation in several areas of delivery, governance, and financing, with uneven coordination across sectors, levels of care, and States, but important efforts are underway to address this challenge

The public sector has the benefit of unified ownership (by State governments) of multiple levels of care (figure 4), and referral guidelines under Ayushman Bharat have created some linkages between primary and secondary levels. However, formal mechanisms for care coordination remain weak. Forward and backward referrals or gatekeeping—in which primary care providers serve as the patient's first point of contact with the health system and refer them to specialists or higher levels of care as necessary or continuing care for a chronic condition after an episode of hospitalisation—are limited. There is little care coordination within the country's highly heterogeneous and eclectic mix of private sector providers or between the public and private sectors. In the absence of an effective referral system and comprehensive, high-quality primary health care with gatekeeping, citizens are left to fend for themselves, which might lead them to seek discontinuous and irrational care, bear high expenses, and have to navigate a labyrinth of formal and informal providers across public and private sectors.

The curative and episodic roles of health-care providers impede their ability to offer continuous and comprehensive citizen-centred care,[232] evident in the large losses to follow-up at every stage of the care cascade.[127,129,167] These gaps and the absence of gatekeeping drive patients to bypass public sector primary care to seek care from hospitals.[136,137,233] This leads to inefficiencies and places a large burden on higher-level facilities, which are often overwhelmed with cases that could be just as effectively managed at lower levels of care. The lack of coordination, exacerbated by nascent patient information systems and electronic health records, is particularly detrimental for patients with multimorbidities and chronic conditions who require continuous and multifaceted care approaches, ultimately contributing to inefficiencies in the health system, higher OOPE, and poor quality of care and health outcomes.[127,129,234]

However, important reforms are underway to address several of these challenges; for example, the creation of digital health infrastructure under ABDM, and efforts

to link AAMs with AB-PMJAY-empanelled secondary and tertiary care facilities. Yet, care coordination and case management functions are not clearly defined within the health workforce, and financing and governance structures continue to reinforce fragmentation. Sustained progress will require strengthening referral systems, intersectoral convergence, and primary health care-led gatekeeping to achieve a more integrated and cohesive health system (sections 4 and 5).

### Current purchasing mechanisms and provider incentives have scope for strengthening to deliver high-quality citizen-centred care

The dominant purchasing methods for health-care services described previously (eg, line-item budgets and fee-for-service OOPE) limit governments from reaping the benefits of monopsony power and economies of scale, as they are able to do in other areas such as medicine procurement through State medical services corporations. Case-based payments under government insurance programmes constitute a negligible proportion of facility budgets and are often not directly linked to clinical quality outcomes. Although these programmes have begun moving towards package rates, which are more effective than single-procedure-based rates in controlling costs and offering citizen-centred care, evidence shows that they still tend to cause cost escalations through overprovision and upcoding of care and offer limited incentives for clinical effectiveness or the lifetime wellness of the patient.[235]

The AB-PMJAY and some State government insurance programmes have introduced incentives to promote care quality and have offered team-based incentives for the empanelled facility. The public hospital can retain the surplus made from these insurance payments and distribute it to the staff. However, only a few States have used them. Although the Central government has proposed value-based payments, these have not yet been implemented.[236] Global evidence shows that the absence of an independent public purchaser dilutes accountability as the same institution performs the roles of purchaser, monitor, and provider of care. As a result, providers face little external pressure to improve service quality or efficiency.[237,238] Private hospitals empanelled under government and voluntary insurance schemes get reimbursements as per-set package rates, but because government insurance rates are much lower than their usual charges, and payments are often delayed, providers often resort to unethical revenue-recovery practices. Common among these are balance-billing (charging patients for the difference between what their insurance covers and the expected cost of the services provided), cost-shifting (compensating for lost revenue by increasing prices for one group of services or package to offset lower prices for another group), referrals to allied private pharmacists and diagnostic centres, or simply a refusal of treatment, amplifying health inequities.[239,240] Fee-for-service payments, with no standardisation of service prices, incentivises supply-induced demand and intentional overprescription of drugs and diagnostics (when their incomes are related to these sales), driving the high OOPE due to drugs and diagnostics.[235,241]

### Medication costs and irrational care are major contributors to OOPE

As discussed previously, over half of OOPE is driven by medicines from the private sector.[116,143,144] These findings are concerning given that public sector facilities are mandated to provide free essential medicines, and governments have implemented the Jan Aushadhi programme for cheaper generic drugs. Furthermore, India has one of the most stringently controlled drug prices in the world. The reliance of citizens on private pharmacies might be due to the low availability of essential medicines in the public sector. The Transform Rural India Foundation observed that, in 2023, only 28·6% of patients with chronic conditions used free medicines; this is despite efforts to enhance access to non-communicable disease drugs via Jan Aushadhi and expansion of the essential drugs list. Furthermore, governance and management procedures cause delays in drug requests by health facilities to the governments' drug procurement agencies and delays in fulfilling supplies, leading to stock-outs.[242–244] In many States, the multiple procurement systems, programmatic funding, and siloed governance structures mean that even within the same health facility, different medicines need to be procured through different agencies and funds. This fragments the entire process and consequently affects the availability of medicines in the public sector and people's access to them.[65,244] The success of the Tamil Nadu Medical Services Corporation, which was set up by the State government in 1994, is a widely cited initiative to address this challenge. Its success lies in its centralised drug procurement and payments combined with a decentralised distribution system, supported by a computerised system of drug management, as opposed to decentralised procurement systems.[64] Other models, such as Kerala and Rajasthan's centralised and electronic systems, have also had considerable success in ensuring the availability of affordable medicines and increasing efficiencies in the public sector.[64,245,246] Smart supply chains—eg, using CoWIN as digital public infrastructure, which was used during the COVID-19 vaccination drive to manage the complex logistics of the pandemic; and the digital Drugs and Vaccines Distribution Management System—offer potential solutions to address these challenges.

Another driver of medicine-related OOPE is their irrational use. The India Health Systems Project (2020) shows that polypharmacy is the norm, with providers prescribing an average of 2·5 drug products per visit, even when the patient's condition does not clinically

require these medicines. [58] Providers often prescribe branded drugs over generics,[170] and providers in both the public and private sectors send patients to private pharmacies instead of referring them to public pharmacies.[139,243] Commercial interests and corrupt practices have a role in both these instances, as many doctors receive commissions on sales or own pharmacies and diagnostic centres through family members despite prohibitive regulations.[247,248] In response, the Uniform Code of Pharmaceutical Marketing Practices was introduced, which has become mandatory since 2024, with severe penalties, compliance monitoring, and reporting mechanisms. Although enforcement mechanisms are not yet in place, this represents an important regulatory tightening against conflicts of interest. In addition to provider practices, patients' health-seeking behaviours, preferences, and perceptions also contribute to purchases of medicines from private pharmacies. Studies have shown that people often directly seek medical advice and purchase medicines from private pharmacies.[170,243] They purchase drugs from private pharmacies not just due to better stocks of drugs but even when public sector facilities are well stocked. People often prefer private pharmacies over public sector facilities due to more convenient services, a more positive patient experience, and that the branded drugs available at these pharmacies are perceived to be of higher quality.[170,243]

### Misaligned provider incentives fuel low morale and inequitable distribution of providers

Provider incentives are important correlates of the equitable distribution of health-care providers across the levels of care to serve under-resourced populations and to motivate them to excel in their chosen fields. Doctors rarely opt to work at lower-paying community medicine or primary care posts, preferring to work in hospitals as specialists, for a range of reasons, including better financial prospects and recognition.[249] Although dual practice is legal in several States, there is evidence that the same doctor offers better quality care in their private practice than in their public sector job, and they often refer their public sector patients to their private clinics, raising concerns about the quality of care, especially for low-income patients who predominantly use the public sector.[57] Monetary incentives are important for encouraging quality and efficiency, but evidence shows that non-monetary incentives and intrinsic motivation are also important.[250,251] Low quality of care and medical errors occur more often when providers are demotivated, which can be fuelled by inadequate working conditions (eg, shortages of basic drugs and equipment) and a lack of agency and career prospects.[252] Apart from good working conditions, job security, having interesting work, respect and recognition, and professional growth are crucial determinants of motivation for health providers, yet many of them feel that these needs are not met in their current jobs.[253,254] Improvements in income, infrastructure, professional networks, and employment and educational opportunities for spouses and family members, and the lack of a comprehensive workforce policy are commonly cited factors why the distribution of qualified providers is skewed towards urban areas and more developed States.[54,249]

In the public sector, low levels of autonomy combined with a management culture of low trust discourages even motivated providers from being innovative and striving for quality or efficiency. Monitoring systems often emphasise accounting for inputs and take a fault-finding or punitive approach instead of a collaborative problem-solving one. As a result, providers often hesitate to report challenges or gaps in the quality of care. Hospital administrators have little autonomy over recruiting and managing staff, as most clinical and administrative staff are hired as civil servants. Furthermore, governing boards of public sector facilities are usually a mix of political, bureaucratic, and clinical staff with limited management capacities. These bureaucratic management practices often lead to inefficiencies in public hospitals, making them unable to tailor their services and human resources for health to their unique patient populations or to respond to incentives offered through payment reforms.[255] Nurses and frontline workers often report low levels of job satisfaction arising from poor professional support, limited career opportunities, negative work atmosphere in health facilities, high workload combined with low autonomy, poor working conditions, hierarchical organisational structures, and gender-based discrimination.[253,256,257] Role rationalisations, career development pathways, and provider collaboratives for non-punitive feedback have been found to be effective in improving provider motivation.[258] Digital technologies are also becoming increasingly important for providing provider feedback and improving motivation.[259] A 2018 study shows that ASHAs receiving regular information on the benefits they created for patients increased their performance by 25%.[260] Unfortunately, few policies have sought to specifically influence or nurture the motivational capital of providers.

### The expansion of clinical educational institutions has improved the numbers of health-care personnel, but uneven quality of training and lack of in-service support contribute to poor competency

The dramatic expansion of clinical educational institutions and the rise in annual enrolment of medical and health professional students have increased the availability of health-care providers (section 2). Approvals for these institutions are granted based on compliance with prescribed norms, with both government and private medical colleges required to meet the same minimum standards, curriculum, and training requirements. However, evidence from several studies across India showing poor competence of providers,

irrespective of qualifications, raises troubling questions about the quality of clinical training and continuing professional support.[136,137,159] Medical education is affected by inadequate faculty and research facilities, unregulated growth in the private sector, and traditional curricula that is dominated by specialist subjects rather than primary health care.[52,53,261] The India Health Systems Project (2020) reports that the diagnostic competence of providers (eg, allopathic doctors, AYUSH physicians, pharmacists, and nurses) trained at government colleges is better than those trained at private colleges, raising questions about the quality of education in the latter.[58] A step towards addressing clinical education quality are the new Medical Institution (Qualifications of Faculty) Regulations (2025), which adopt a competency-based approach to expand the pool of eligible faculty and help meet India's growing need for qualified teaching personnel.

India's adoption of the National Eligibility cum Entrance Test (NEET) has aligned its medical entrance process with global norms of centralised, merit-based admissions, replacing multiple exams and curbing payment-driven entry. Although some States have raised concerns about the autonomy of State-funded colleges and equity for rural and economically disadvantaged students, implementation of NEET and the competency-based MBBS curriculum (2019) has been an important step towards reducing the costs of medical education and improving clinical competence.[52,261]

The challenges of provider competence are also strongly linked to poor in-service supervision, training, and support. Global evidence shows that one-time training does not produce sustained improvement in the quality of care, and training needs to be combined with other measures, including monetary and non-monetary incentives, a supportive environment, continuing quality improvement strategies, and peer influence, to affect care quality.[150,262,263] Re-certification of providers is not a requirement in India, and very few providers undergo regular in-service clinical training or enabling supervision (as opposed to punitive supervision) of the quality of care delivered.[58] The poor competence of providers is also related to the low observance of clinical protocols and practice guidelines.[264] This is compounded by the inadequate quality of clinical practice guidelines and protocols;[265,266] for example, an assessment of clinical practice guidelines for managing cardiovascular conditions found that 74% of these guidelines were of low quality.[265] Furthermore, the existing protocols are designed for MBBS doctors and specialists in hospitals and are rarely prepared for, or disseminated to, non-physician workers and are seldom provided to private sector providers.

Beyond clinical competence, providers need training on interpersonal skills and communication, social determinants of health, ethics, management practices, and leadership—areas that are almost entirely ignored by current pre-service and in-service training.[267] Effective communication between different cadres of health-care providers and between providers and patients is essential for delivering citizen-centred care. The lack of structured training in these so-called soft skills can make health-care providers less adept at building trust, fostering therapeutic relationships, or addressing the broader social factors that influence health, especially for vulnerable populations or patients with unique needs.[268,269] There have been initiatives to address these gaps. Under the Competency-Based Medical Education (2024) framework, the revised curriculum integrates basic and clinical sciences, promotes early clinical exposure, builds essential skills and ethical foundations, and prepares medical graduates with the competencies needed to meet modern health-care challenges with clinical excellence and professional accountability. The District Residency Programme mandates a year-long district posting for postgraduate students to strengthen health-care delivery in rural and underserved areas, while the Attitude, Ethics, and Communication module integrates training in ethics and communication to shape students' professional and interpersonal competencies from the outset. In parallel, the National Medical Commission upholds standards of medical training and ethics through its regulatory framework, including the Professional Conduct, Etiquette, and Ethics Regulations (2023) and through the work of its Ethics and Medical Registration Board, which aims to promote patient welfare, accountability, and integrity.

### The full potential of decentralisation in health system governance is yet to be realised

The health system is primarily a State responsibility in the Indian Constitution. The 14th (2015–20) and 15th (2021–26) Finance Commissions, which determine the revenue-sharing rules between Central and State governments, have promoted fiscal decentralisation, augmenting State and local government roles.[270,271] The 14th Finance Commission brought about the highest-ever increase in the share of States in central taxes, increasing from 32% to 42% (although actual devolution has remained on the lower side of the range), substantially empowering States financially and enhancing their autonomy in spending on local priorities; the 15th Finance Commission introduced sector-specific grants, including a focus on primary health care and building capacities of local governments.[270,271] However, the implementation of this mandate has been limited, primarily due to the Central government's imposition of cesses and surcharges (which are not shared with States), thereby reducing the overall devolution to States as a percentage of gross tax revenue. As of 2021–22, almost two-thirds of the total GHE is borne by States, which includes funding for centrally sponsored schemes such as the NHM and AB-PMJAY.[61] The current capacities and governance mechanisms are better suited for programmatic and

episodic delivery of services, such as the National AIDS Control Programme's success in stemming the HIV epidemic[272] and, more recently, the COVID-19 vaccination programme.[273,274]

Within States, despite the existing institutional frameworks for decentralisation, the ability to effectively govern financial and human resources at local government levels is weak due to excessive centralisation and inadequate capacity, resulting in blurred boundaries with large overlaps of responsibilities between jurisdictions across the tiers of government. The complexity, bureaucracy, and multiplicity of health policy administrative procedures complicate the issue of clarifying responsibility and fixing accountability. The emphasis is on the meticulous accounting of expenditures against rigid programmatic line items and tracking easily verifiable inputs and traceable outputs rather than the quality of care or health outcomes, promoting a low-trust culture that seeks to achieve organisational goals through tight monitoring rather than encouraging autonomy and innovation. In 2020, a comprehensive study of health workers, managers, and civil servants at different levels showed that low trust and rent-seeking characterise several public sector institutions, especially in resource-poor States.[275] As a result, many local government officials are risk-averse or demotivated. Although there has been progress on the devolution of fiscal powers, inflexible budgets, vertical programmatic funding, and bureaucratic resource constraints leave little room for such devolution to be impactful.[276] Although States with better institutional capacities show higher levels of self-reliance, the limited capacities of many States and, to an even greater extent, districts, coupled with the centralised nature of funding, cause districts to rely on States (which, to some extent, continue to rely on the Central government) for finances, agenda-setting, expertise, and governance.[275,277] As a result, historically, local governments have played a limited role in the design of the health system, making it challenging to tailor health services to contextual realities and community needs and contributing to the fragmentation of organisational relationships between levels of care.

### Regulatory mechanisms exist, but effective enforcement has been a crucial governance challenge, worsened by large gaps in congruent, reliable, and timely data

India has several regulations and institutions designed to oversee standards of care across the public and private sectors, but gaps in institutional capacities, overlapping jurisdictions, conflicts of interest, and regulatory capture create substantial challenges in implementation.[278–280] Three important examples of these challenges are the Clinical Establishment Act (CEA), the NMC, and the Central Drugs Standard Control Organisation (CDSCO). The CEA was an important step in creating a framework for the registration and minimum quality standards of health facilities, although its adoption has been uneven across States. However, despite being in effect since 2010, only 12 States have adopted the CEA, and even among these States, there is inconsistent implementation, inadequate enforcement of standards, and insufficient regulatory oversight. Consequently, even in these States, there are no updated, reliable data on private sector providers operating across the State. The CEA, which requires district collectors to manage registrations and inspections of facilities and district medical officers to enforce its provisions among their many duties, lacks sufficient well trained staff for compliance inspections. Additionally, although the CEA applies to both public and private sector providers, the regulators under this Act are also public sector officers, creating conflicts of interest. This issue is further compounded by rules in some States that permit public sector providers to engage in private practice. Consequently, most providers go unregulated without having to follow standard practices, contributing to the poor quality and rising costs of care.[20] However, the CEA is only one part of India's broader regulatory architecture. The Drugs and Cosmetics Act (1940), which is a central legislation, continues to be the cornerstone for regulating the quality, safety, and efficacy of medicines, medical devices, and cosmetics across the country. Furthermore, even though the CEA does not explicitly address patient rights, complementary initiatives such as the draft Charter of Patients' Rights and quality accreditation frameworks such as the National Quality Assurance Standards and the National Accreditation Board for Hospitals offer avenues for accountability on care quality.

Similarly, the NMC (2019) marked a structural reform to enhance the transparency and standardisation of medical education, accreditation, and licensing standards of doctors[52] to address the entrenched issues of poor quality of medical education, competencies of doctors, and the quality of care. Although earlier critiques noted that the NMC Act did not adequately address the conflict of interests among corporations, pharmaceutical and device companies, medical education, and health-care services, subsequent reforms have been adopted to address these concerns. The Uniform Code for Pharmaceutical Marketing Practices (2024) directly prohibits unethical inducements by pharmaceutical and device companies. In parallel, the NMC (Professional Conduct, Ethics, and Etiquette) Regulations (2023) codify strict provisions against financial relationships that compromise professional integrity, requiring disclosures and barring doctors from accepting gifts, hospitality, or sponsorships. Together with the Medical Device Rules (2017; amended in 2020) and the broader drug price control framework (sections 2 and 4), these policies represent a layered set of safeguards aimed at reducing conflicts of interest,

ensuring ethical medical practice, and improving the quality of care.

The CDSCO regulates pharmaceuticals and medical devices and oversees approvals, imports, clinical trials, and quality standards for pharmaceuticals, medical devices, cosmetics, and vaccines, while State-level drug controllers oversee local manufacture, distribution, and retail licensing. India's dual regulatory structure (established under the Drugs and Cosmetics Act) has historically created variations in enforcement capacity across States. However, recent reforms, including the Medical Devices Rules, expansion of central licensing for crucial drugs and vaccines, adoption of joint inspections, and digital platforms such as SUGAM (an e-governance portal for regulatory oversight of the pharmaceutical sector), have strengthened coordination between Central and State regulators. Enforcing these promising regulations and overcoming opposition from powerful interest groups are ongoing challenges.[281,282]

The challenges in enforcing regulations also manifest in problems such as provider absenteeism, fraudulent insurance claims, overbilling and balance-billing by hospitals, commissions from unjustified referrals to private providers or to pharmaceutical and medical device companies, and corruption in procurement systems that plague drugs and equipment in the public sector.[283] A study of governance reforms for public sector procurement systems across different countries, including India, shows that e-procurement and the use of big data improve transparency, the quality of contract implementation, and efficiency.[284] India's efforts to fight the challenge of corruption, articulated through its commitment to Zero Tolerance Against Corruption and recent initiatives including e-government, e-tenders, direct transfers of funds, and various legal acts (most notably the Right to Information) offer well laid foundations to address these challenges.[285]

Although India does not yet have a dedicated national health ombudsman for its health laws, there are grievance redressal mechanisms for its citizens. Under the NMC Act (2019), State medical councils can take disciplinary action against registered doctors, while the National Medical Commission serves as the appellate authority. However, the absence of a single, integrated health grievance authority does lead to fragmented redressal, even though complaints can currently be addressed through consumer protection forums, courts, medical councils, hospital-level grievance officers, and sector-specific regulators (eg, insurance ombudsmen). A major flaw in the governance architecture is that most existing health laws in India do not include grievance redressal mechanisms for patients. In the absence of a clear redressal system, courts have indicated that criminal laws and consumer protection forums are the appropriate avenues for addressing individual medical grievances. The CEA (2010) and the NMC Act (2019; sections 2–4) provide formal channels for patient complaints, although their effectiveness depends on State-level implementation and awareness among citizens. However, these forums are limited in number, challenging for citizens to access, and often inadequate to meet the demand. Where ombudsman offices have been established, such as in the insurance sector, considerable deficiencies remain. A 2018 study, for example, found that all 17 insurance ombudsmen offices were vacant, with over 9000 complaints pending.[286]

There is an urgent need for congruent, reliable, and timely data on key health system metrics and a robust disease surveillance network to enhance the government's ability to exercise responsive governance and respond to emerging health-care challenges. Currently, provider data—almost entirely focused on physical inputs—are collected only from the public sector. There are no data on who provides what types of services or the quality and patient outcomes of these services. Lack of data on health care and outcomes also impedes citizens' ability to assess what care is available, how their health system is performing, and how to hold governments and providers accountable for their performance.[287] Mirroring health-care delivery, the responsibilities for health data gathering, reporting, and responding are deeply fragmented among different ministries or institutions with poor coordination.[288] Most large programmes seek to collect data primarily for programme monitoring; secondary uses have often included the creation of a patient record, at least for use by clinical providers and, less frequently, by patients themselves. Patient health records remain largely paper-based with very limited data and are typically held by the patient, making it difficult to track health outcomes or coordinate and ensure continuity of care. Electronic health records exist only in a minority of health-care facilities in India and are mostly concentrated in a few large private hospitals and not-for-profit community-based initiatives. The Integrated Disease Surveillance Programme and the Integrated Health Information Platform are predominantly focused on infectious diseases and are affected by fragmented coordination between Central and State governments, making it difficult to integrate data from different sources and take timely action.[289] Innovative new digital platforms hold the promise of transforming health surveillance and governance.

### Unprecedented developments in digital technologies hold promise for India's health system, and upholding equity, privacy, and data protection are important considerations in scaling such innovations

India's digital technology sector is one of the most dynamic and rapidly growing in the world, driven by a combination of government initiatives, private sector innovation, and growing population ease with digital tools, as evidenced by the near-universal penetration of mobile phones and the high volume of day-to-day financial transactions. Unlike many countries, India is

institutionalising digital health through a robust legal framework: the Digital Personal Data Protection Act (2023) lays out principles for collecting, storing, and processing digital personal data; the Information Technology Act (2000; amended in 2008) provides a framework for secure electronic transactions, and empowers the government to regulate and oversee digital activity, including cybersecurity; and the Telemedicine Guidelines (2020) establish consent, privacy, prescribing limits, and accountability standards to safeguard patients in digital care.

The country's vibrant technology ecosystem is developing innovations in data systems and electronic health records, telemedicine, decision-support tools, and AI, as seen in flagship platforms such as the ABDM, e-Sanjeevani, and CoWIN (sections 1–3), offering the potential to overcome long-standing challenges of the health system in improving access, care coordination, continuity, quality, and governance (figure 17). The most promising among these, although yet not fully realised, is the government's landmark digital public infrastructure initiatives, including the ABDM and the India Health Stack. Their unique architecture mirrors that of the Universal Payment Interface in India's financial sector, in that it allows for application programming interface-enabled exchange of interoperable data across all potential nodes in the health-care ecosystem via an asynchronous consent management process such that the patient remains the final arbiter of data exchange, or at the very least is fully informed. This design obviates the need for electronic health record monopolies and allows for citizen-centred, provider-friendly innovation in health data.[290] These initiatives showcase India's capacity to scale inclusive, interoperable, consent-driven tools. Although challenges of equity, privacy, and data protection remain, India's digital public infrastructure, building on the success of its Universal Payments Interface, provides both safeguards and opportunities to strengthen domestic health governance but also to shape the future of digital health diplomacy worldwide.

As part of the ABDM launched in 2020–21, registries aim to collect data from both providers and patients. As of October, 2025, the Health-care Professionals Registry for doctors and nurses had registered approximately 725 000 providers, the Health Facility Registry had registered 432 000 facilities, and the ABHA—a unique health identifier for every citizen to allow linking and sharing of health records across providers and levels of care—had created over 823·5 million accounts and linked over 766·3 million health records, laying the foundation for an application programming interface-enabled exchange. Still, one of the challenges in the universal adoption of these data systems is that they are not mandatory. Large public and academic initiatives, such as the Open government Data Platform and India Data Portal (appendix p 3), have made substantial strides in making data more easily accessible and are seeking to harness private data for the public good. CoWIN is slated to become the digital backbone for India's entire immunisation programme, providing—if applied correctly—granular epidemiological information to study utilisation, efficacy, and transmission. By July, 2020, Aarogya Setu, the government's mandatory contact-tracing app, has achieved around 127 million downloads, positioning it as the most downloaded COVID-19 tracing app globally, signalling the ability and willingness of the Indian population to engage with digital tools. Indeed, the Citizens' Survey (2023) observed the high utilisation of digital technologies for health care across all levels of $UHC_d$ districts, ranging from 67% of households for general information on health to 23% for teleconsultations; however, these figures might hide age and gender disparities (figure 18). MoHFW data show a 23-time increase in primary care teleconsultations (from 260 000 teleconsultations in 2019–20 to 62·3 million teleconsultations in 2025), and a 15-time increase in teleconsultations for mental health through the government's TeleMANAS platform (from 81 830 teleconsultations in 2022–23 to 1·2 million teleconsultations in 2025–26). Digital platforms are also being deployed at the State level. For example, the Kerala Blockchain Academy has developed technologies for tracking vaccines, birth certificates, and death certificates, contributing to the further fragmentation of disease surveillance and screening systems.

The national telemedicine service, eSanjeevani, is being used for referrals from a primary care facility to a specialist, and, as of October, 2025, the platform has had over 424 million teleconsultations across the country. Its implementation challenges include the limited availability of specialists.[291] Leveraging the success of CoWIN during COVID-19, the government's U-WIN platform is designed to capture each vaccination event of all pregnant women and children under the Universal Immunization Programme and has over 133 million registered beneficiaries, as of October, 2025. A wide array of technological innovations are also emerging from the private and NGO community (figure 17). For example, ImTeCHO (Innovative Mobile phone Technology for Community Health Operations), developed by the Society for Education Welfare and Action-Rural in collaboration with the government of Gujarat, has digitised clinical records for the selected populations they serve. Private sector digital platforms such as Practo, Pharmeasy, and Tata 1mg act as aggregators of clinical providers and provide millions of online consultations, diagnostics, and home delivery of medicines. The 10BedICU, a partnership of private entrepreneurs, philanthropies, and State governments, has been deployed across nine States since the pandemic (as of July, 2024), enabling higher-level task-sharing by converging telemedicine and brick-and-mortar upgrades to advance public sector critical care services in remote settings that would otherwise fail to attract specialists.[292]

For more on **10BedICU** see https://10bedicu.org


***Figure 17:*** **Components of the digital technology ecosystem in India**
ImTeCHO=Innovative Mobile phone Technology for Community Health Operations. CDSS=Center for Chronic Disease Control's Clinical Decision Support System. ABHA=Ayushman Bharat Health Account. ABHA ID=ABHA identification number. DAMS=The Delhi Academy of Medical Science. CoWIN=Covid-19 Vaccine Intelligence Network. HPR=Healthcare Professionals Registry. US FDA=US Food & Drugs Association.

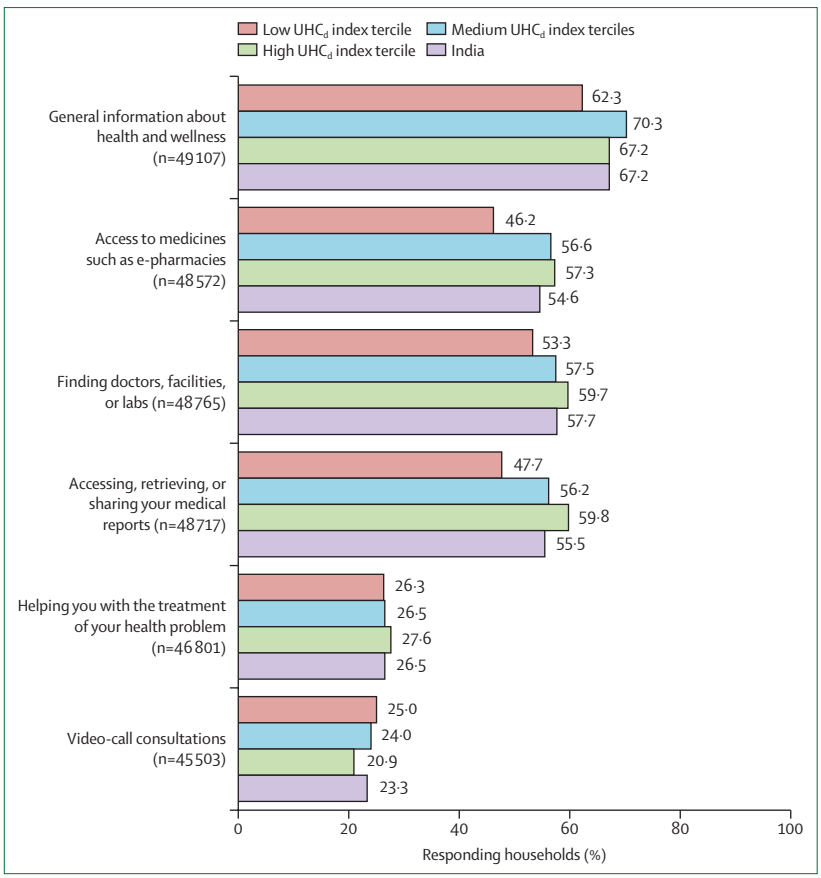


***Figure 18:*** **Use of digital technologies, internet, and smartphones for accessing health care by households**
Data from the Citizens' Survey (2023) conducted by this Commission. n denotes national samples. Denominators differ across variables for UHC$_d$ terciles. UHC$_d$=universal health coverage performance at the district level. Figure created with Datawrapper.de.

The success of this partnership will depend on a steady supply of nurses and technicians trained in critical care to administer interventions that cannot yet be substituted remotely. Recognising this, 10BedCU has launched a comprehensive training effort in critical care. AI and machine learning are playing increasingly important roles in diagnosis, personalising treatment plans, and surveillance to predict disease outbreaks, such as those used during the COVID-19 pandemic.[44,293] Real-time data collection and analysis hold promise for early detection of epidemics as well as for tracking AMR, allowing for swift public health responses and containment measures.[43,44,293] Digital platforms, such as EMPOWER, administered by Sangath, are also being used to train frontline health workers to deliver mental health care. Domestic, cost-efficient innovations for diagnosis (eg, PathoDetect) hold promise for strengthening the management of illnesses at the primary care level.[294,295] There have also been some innovations in decision-support tools to aid providers in clinical decision-making for diagnosis and treatment, such as the Auxiliary Nurse Midwife Online platform and Project ECHO (Extension for Community Healthcare Outcomes) for clinicians (appendix p 3).

Unprecedented technological developments hold great promise for India's health system, but addressing equity and ethical considerations is paramount. Although a large proportion of households have mobile phones (as of 2024, India has over 1·1 billion phone subscriptions, with the highest data traffic per smartphone in the world), many households in rural areas and the lowest income quintiles still have poor internet connectivity, and women and older adults have limited access (in 2019–21, about 54% of women in India owned their own mobile phone *vs* 89% of men).[33] Without considering these distributional divides, digital health technologies have the danger of amplifying inequities.[296] Similar considerations face technologies for providers. The District Case Studies (2023) found that administrators in high UHC$_d$ districts used technology for planning and monitoring services, those in medium UHC$_d$ districts used digital monitoring only for specific services such as immunisation, and those in low UHC$_d$ districts used basic manual data entry. A common theme regarding technology was the need to balance the quantity of databases and digital platforms with local needs and capacities. Across districts, administrators and providers felt there were too many data portals relative to limited staff capability and time, and they reported facing internet connectivity challenges in remote areas.

Historically, the burden of health data entry disproportionately falls on already overworked and underpaid frontline workers in the public sector. Many apps targeting frontline health workers have not incorporated design principles to optimise user experiences and often demand hours of data entry on small phone screens mediated via radio buttons, small fonts, and unsteady internet connections. Despite its impressive roll-out, India's digital contact-tracing app could not achieve its primary goal of bringing down the transmission rate due to a range of predictable factors, including insufficient numbers of BLE2-enabled Bluetooth devices and low trust among marginalised communities.[297,298] Initiatives including the government of India's Bhashini and the National Language Translation Mission seek to make real-time translation across Indian languages seamless, and using AI for voice commands could help advance digital literacy and access for both patients and providers. Similarly, clinical decision-support tools could be powerful interventions to address the challenges of poor clinical quality, but they need to be contextually relevant and adapted for provider type, local epidemiology, affordability, and availability of diagnostics and therapeutics. In India, where ensuring high-quality care has been one of the biggest challenges, telehealth services without basic diagnostics and therapeutics could render these tools and services less useful and result in unguided deviation

from clinical guidelines or an increase in irrational medicines.

### Community-based platforms enabling citizen engagement and community action for health have shown improvements in accountability and access but require more support

A wide range of platforms for community participation for health have been promoted by the government, such as the VHSNCs, Mahila Arogya Samitis, and RKS (section 2), with varying impacts. The District Case Studies (2023) found that these platforms are implemented along a wide spectrum that reflects how people participated in planning, implementing, monitoring, and promoting accountability within the health system. In Kerala, local self-government bodies receive government funds and are crucial in conducting social audits of health facilities, appointing doctors and staff, and working closely with communities and women's groups on preventive and promotive activities at the population level. In Meghalaya, village health councils draw on the traditional leadership in the State to engage community members in prevention and monitoring activities. Tamil Nadu introduced women health volunteers drawn from women's self-help groups to screen households for non-communicable diseases, support referrals to facilities, and provide home-based delivery and monitoring at the household level. Some subcentres have initiated patient support groups for patients with non-communicable diseases to support both treatments and knowledge-sharing within the community. Respondents in high-performing $UHC_d$ districts emphasised the value of ownership of health-related processes through decentralised local self-government, as well as mechanisms such as State and district health assemblies and coordinated reviews of government programmes by different actors. Furthermore, the District Case Studies (2023) show that the community engagement mechanisms that were found to be most effective were those closely linked to health facilities through prevention, service, or monitoring. Respondents across districts found that most of the well accepted approaches to community engagement were not top-down interventions for behaviour change, but were rather engaged through local government and institutions to ensure people's voices and needs are integrated within the health system. Perceived barriers to effective citizen engagement included a lack of stated priority for health among communities, along with diversity in languages, social groups, and health needs that require better representation and engagement.

Evidence from different States shows that several VHSNCs and Jan Arogya Samitis have equitable representation of women and vulnerable communities.[140,299] Many of these committees have achieved higher awareness about health in the community, ensured longer operating hours of local public sector facilities, and facilitated more equitable distribution of RMNCH-related services.[140] In Kerala, the People's Planning Campaign that started in 1996 devolved functions, finances, and functionaries for various sectors (including health) to local governments at the village and municipality levels, activated participatory planning, and raised people's expectations of the health system. Evidence shows that this history of strong decentralisation, combined with Kerala's educated and relatively empowered citizenry, positively influenced participatory processes initiated under the NHM and outcomes of VHSNCs.[300] Indeed, experiences from most other States indicate that support is required to ensure that community engagement platforms have the requisite capacity and are empowered to engage successfully in the intended functions for decentralised planning and action as well as governance and monitoring of health providers.[140,299] Multiple studies have found that these committees are constrained by inadequate funding and support to build capacity among the members to monitor health providers and take meaningful action, and implementation challenges such as irregular meetings, members' limited understanding of their roles and responsibilities, restrictions on planning and fund utilisation, and weak linkages with the broader health system.[299] Analysis also shows that in many States, these platforms have shifted from community-led to State-controlled, reducing civil society ownership and flexibility and becoming more bureaucratic.[301] Contexts that have been able to maintain strong community action have done so by being adaptive, grounded in local politics, and supported by trust-based State–civil society partnerships.[301]

Additionally, structural power dynamics among community members and between community members and health-care providers, such as those related to caste, are reflected in VHSNCs and RKS, thus limiting their ability to implement accountability mechanisms and bring about meaningful change.[302,303] Adequate representation requires careful consideration of who is represented and proactive identification of those who are not represented to ensure that committees are positioned to address entrenched power dynamics related to caste, class, and gender. Even though the representation of women and marginalised groups is ensured, sustained effort and support, such as shown by the Advisory Group on Community Action, are required to promote meaningful participation and decision making. Furthermore, power hierarchies between ASHAs, other frontline health workers, nurses, and physicians present challenges to the mandate of meaningful community-monitoring.[257,304] The experience of partnerships of the Advisory Group on Community Action with civil society organisations in Tamil Nadu; social audits in several States including Jharkhand, Meghalaya, and Uttarakhand; and collaborative training with State-level resource centres and training institutions to mentor VHSNCs, local self-government institutions in Bihar, Chhattisgarh, Maharashtra, and Rajasthan, and nationwide Jan

National Insurance VimoSEWA Cooperative.

**VimoSEWA's marketing team imparting financial literacy for risk mitigation among community members deploying digital tools**

National Insurance VimoSEWA Cooperative.

**VimoSEWA's community-based Aagewan (grassroot insurance promoter) using IEC material for disseminating insurance awareness for financial protection**

***Panel 3:* VimoSEWA: a women-owned health insurance cooperative**

VimoSEWA is a microinsurance cooperative promoted by the Self-Employed Women's Association (SEWA), which offers women affordable insurance products, including health insurance. It is a standalone and full-service delivery insurance entity in which women members are the users, owners (as shareholders), and managers. Financial literacy precedes all selling of insurance, thereby ensuring that policy holders understand the basics of insurance and how it works. The marketing is done by a team of 900 insurance promoters called Vimo Aagewans who sell ten products, one of which is a unique mutual product developed by VimoSEWA that compensates loss of income or wages due to hospitalisation of informal women workers and/or their family members. The Vimo Aagewans also ensure timely claims servicing. VimoSEWA is both an intermediary linking women to insurance companies and a mutual insurance cooperative offering its own products. It has around 100 000 members and 4989 shareholders in five States, including in Assam in northeast India. Since 1992, the organisation has substantially developed its customer service delivery, including digitisation of all its processes and training Vimo Aagewans to use an app to enrol members (available in Hindi, Gujarati, Assamese, and English). VimoSEWA has issued 1 million policies and settled claims worth INR 260 million, thereby protecting women's hard-earned incomes and the erosion of their assets.

Samwads showcase the possibility of community action when provided with adequate support, funding, and autonomy (panel 2).

### The active participation of citizens in their own health helps overcome information asymmetries and power imbalances, and they need to be adequately empowered

India has long exemplified the agentic role of citizens in navigating health-care markets and the power of citizens' participation and community mobilisation to define priorities and approaches to improve health outcomes. For example, patients from low-income households often travel further to access higher-quality care, effectively narrowing the quality gap between low-income and high-income households.[305] However, this navigation comes at the cost of considerable time and effort for poorer households.[306] Civil society organisations have been at the forefront of leveraging community mobilisation initiatives. For example, in Jharkhand, participatory learning and action led by women's groups with ASHA supervisors, with support facilitated by Ekjut, to identify local problems and arrive at solutions resulted in a 24% reduction in neonatal mortality at scale.[70,307] Similarly, Jan Swasthya Sahayog's use of support groups for patients with chronic diseases in Chhattisgarh showed improvements in treatment adherence.[308]

The engagement of people and communities is being scaled up across a range of health issues. Community-based action anchored by the community health workers of Chhattisgarh (called Mitanin) on domestic violence and undernutrition shows how an interface between health volunteers and marginalised communities can be respectfully enabled in an empowering fashion.[71,309] A government-led malaria reduction programme that engaged women's groups, local governments, and community groups resulted in increased use of bednets, higher use of antimalarials, and timely health-seeking from trained providers.[310] The National AIDS Control Programme actively engaged sex worker collectives as stakeholders in design and implementation; interventions that used community mobilisation and participation have resulted in reductions in sexually transmitted infection prevalence, decreased stigma, and increased uptake of preventive strategies.[311] The Jan Swasthya Abhiyan—a member of the global People's Health Movement—plays a pivotal role in providing a platform for citizens to voice their health needs and for promoting public debates on health policies. It has partnered with the National Human Rights Commission to hold a series of public hearings, resulting in the first set of action plans and discussions about the Right to Health in several States. Citizen-led initiatives have also aimed to improve financial risk protection and access to health services. For example, the Self-Employed Women's Association, a union of self-employed women, introduced community-based health insurance (panel 3) and Uplift Mutuals, which introduced health-care service financing through a cooperative model (appendix p 3).

Information asymmetries and behavioural distortions, which are typical in health care, assume even more importance in the Indian context with low educational attainment, high levels of poverty, and pervasive sociocultural hierarchies. As noted previously, patients are often unable to judge clinical competence and might request diagnostic tests or medicines, purchase drugs from private pharmacies even when public sector drugs are available, and bypass primary care for hospitals based on personal beliefs or information obtained from friends and family or the internet.[170] Awareness-building interventions with providers and patients, although crucial, also require health system interventions in financing and governance to improve care quality.[312–314] There are very limited provider accreditations and ratings in India. The existing ones are almost entirely focused on infrastructure, administration, or the number of personnel—metrics that are not directly linked to clinical quality or patient experience. Moreover, their results are exclusively used by administrators and rarely disseminated to the public. The absence of comprehensible and openly accessible provider assessments further increases information asymmetries and reduces the likelihood of

choosing high-quality care. Similarly, the consolidated results of the rudimentary patient satisfaction rating system for AB-PMJAY-empanelled hospitals, Mera Aspatal, is not readily available to the public, nor does its ratings have any serious consequences for providers, given the passive purchasing methods that dominate the financing of health care.

### Health has fallen behind other priorities on the political agenda, but India's vibrant democracy offers strong foundations for participation and political accountability

Historically, India's public sector has faced challenges of underfunding, uneven quality, and limited capacity,[315] which has driven many middle-income and upper-income households to seek care from the private sector, particularly for outpatient and elective care, citing poor quality services or discomfort with sharing public sector facilities with low-income groups.[316] As a result, the public sector has come to be perceived largely as a system for people with lower incomes,[316] even though it continues to play a crucial role in providing inpatient and emergency services for all income groups, especially for high-cost treatments. This dynamic has important political economy consequences. The exit of wealthier groups reduces their willingness to support redistribution through taxation, thereby weakening state capacity.[316]

Theoretical and empirical evidence shows that such cycles of weak delivery, middle-class and upper-class exit, and low demand for reform further undermine the legitimacy of the public sector and historically contributed to the low political prioritisation of health as a public good,[317] and has reduced pressures on elected representatives to change the system.

Only half of respondents in the Citizens' Survey (2023) said they would consider health when voting in their next State and national elections, and two-thirds of respondents agreed that they would like to hold government officials responsible for health-care services in their community (figure 19). However, in the recent 2024 national election, although unemployment, price rises, and poverty were dominant issues, health was rarely mentioned in voter choices. Yet, one study reported that although health was a lower priority, the public electorally rewarded politicians who had also prioritised health services.[318] An analysis of three national elections (from the 2009, 2014, and 2019 elections) indicates that health was mentioned in the manifestos of the two major national political parties, the Indian National Congress, and the Bharatiya Janata Party, as well as in media coverage.[66] However, most of this prioritisation was evident in the public narrative (or popular media) without a proportionate accompanying change in the institutional agenda reflected in the allocation of budgets and legislative debates.[66]

These are concerning trends as electoral participation emerges as one of the strongest levers for citizens to influence policies related to the health system. Health outcomes in democracies are better compared with other regime types, as democratically elected representatives have an interest in meeting their voters' demands.[319] However, the association between electoral participation, health reforms, and health outcomes is mediated by whether citizens are aware of the importance of health, whether they consider health care as a responsibility of their government, and whether they are electorally powerful enough to make health care a part of the political agenda.[319,320] Growing evidence suggests that political participation and effective

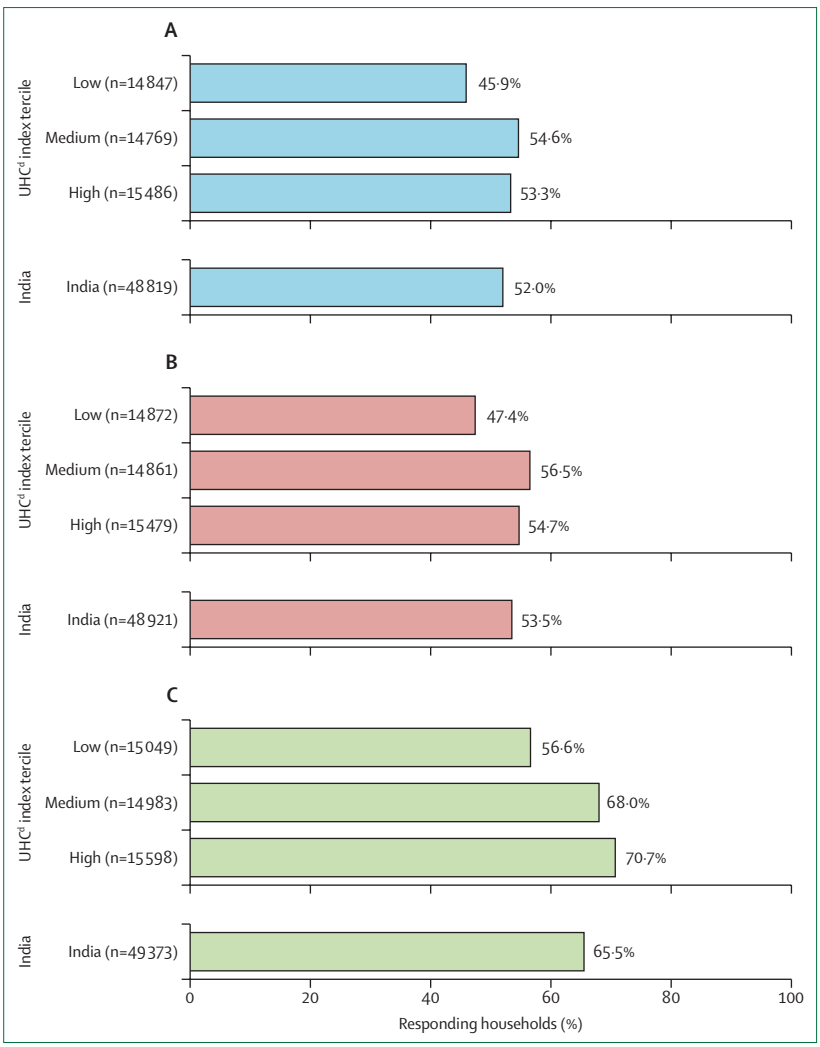


***Figure 19:*** **Voting preferences among households**
(A) Electoral preferences in central government elections. Percentage of households responding affirmatively to: when I next vote in the central elections, my views about health care will influence which party or person I vote for. (B) Electoral preference in State government elections. Percentage of households responding affirmatively to: when I next vote in the State elections, my views about health care will influence which party or person I vote for. (C) Expectations about accountability for health. Percentage of households responding affirmatively to: I would like the elected representatives or government officials to be held responsible for the quality of health care in my community. Note: this survey was not about any specific election. Data from the Citizens' Survey (2023) undertaken by this Commission. $UHC_d$=universal health coverage performance at the district level. Figure created with Datawrapper.de.

enfranchisement of lower-income and socioculturally vulnerable voters have direct consequences for the delivery of health services and improved health outcomes,[321] and that political oversight over bureaucrats increases accountability in the provision of public goods through democratic processes.[322]

## Section 5: reforms to transform India's health system

India's aspirations to achieve the SDGs and attain the status of a developed economy hinge on the immediate prioritisation of realising UHC. This Commission highlights several key observations that emphasise why the time for a reimagination of India's health system is now. First, service capacity has increased substantially, and the country now has an extensive architecture of providers and facilities in both public and private sectors, which, together, reach most households.[50] Most citizens seek care when ill,[34,58,118] and an increasing proportion of the population uses the public sector, especially for inpatient care (figures 10, 11). Second, economic growth and increasing trends in GHE in several States make advancement towards UHC fiscally tenable.[15] Third, most citizens express a preference for a stable primary care provider as the first point of contact for their health-care needs (figures 10, 11), and the large number of AAMs staffed with the new cadre of community health officers offers a strong foundation for comprehensive primary health care. Fourth, several initiatives over the past two decades have laid a strong foundation for citizens' engagement in the health system and community action for health; a considerable proportion of citizens consider health an important issue when making voting decisions, holding their elected representatives accountable for health services (figure 19), and a large proportion express that the health system needs major changes.[118] Fifth, India has seen unmatched technological advancements led by the government and private sector, with extensive coverage and utilisation of digital tools and robust digital public infrastructure, complemented by a large and growing proportion of households using digital technology (figure 17). Together, these factors highlight India's capacity to leverage its financial, human, industrial, technological, and social capital to realise UHC. They underscore a compelling mandate for the Central and State governments to assume full responsibility for providing high-quality, comprehensive health care to the entire population within the next decade.

As noted in section 1, this Commission is not the first to recommend reforms for the Indian health system. Previous efforts have informed several initiatives to improve the health system, with varying levels of success in their adoption, implementation, and impact. Nevertheless, structural barriers have persisted, fragmentation of the health system has increased, and there is consensus that India remains far from where it intended to get on its UHC journey.[323] Drawing from our theory of change,[11] our recommendations seek to address these challenges and are guided by the following principles. First, a transition from a facility-centric, reactive, and fragmented delivery system focused on specific diseases towards a coordinated, citizen-centred, rights-based health system designed to support a wellness journey through a continuum of promotive, preventive, curative, rehabilitative, and palliative care, including best practices from diverse systems of medicine. Second, a transition from citizens being passive recipients towards becoming active agents with rights who participate in informing the design of health services, governing the health system, and demanding information and grievance redressal. Third, a transition from focusing on the physical availability of health care alone towards ensuring that high-quality health care is provided with dignity and respect for all people, irrespective of income, gender, and sociocultural background, and addressing the crucial role of social determinants of health. Fourth, a transition in governance from a culture of accounting to one of accountability and trust in the public sector is necessary to strengthen federalism and decentralised planning, informed by comprehensive and timely data that actively capture and report local population-level outcomes. Fifth, a transition from a reliance on health professional qualifications to emphasising provider competencies, values, and motivations and life-long learning that embraces provider diversity and empowers frontline workers and non-physician providers. Sixth, to responsibly and ethically leverage the power of innovative science and technology to deliver citizen-centred care. Finally, and most importantly, to explicitly acknowledge equity as a core value of UHC and the reduction of inequities as a measure of progress across UHC goals. Our recommendations are underpinned by the value of seeking to provide services to all, with additional resources provided to specific States, districts, and members of specific groups to offset the structural inequities that they face.[9] These principles are rooted in our belief in a citizen's Right to Health and that the government must be responsible and accountable to its citizens to provide UHC.

Variations in State and district health systems,[13] including vast urban–rural differences across India, highlight the importance of decentralised processes in health system design, implementation, and evolution tailored to these diverse contexts. Recognising this, we present our reforms as options for governments to choose from based on their local realities. Our reform options are informed by existing policies and priorities, lessons from diverse experiences across India, the comparative experiences of relevant countries, the comprehensive evidence synthesised in this report, and extensive consultations and debates with key stakeholders.

While we present reform options for both the public and private sectors, our clarion call is for increasing and efficiently spending GHE towards a publicly financed

Underlying equity concerns across UHC goals

## UHC achievements and challenges

### Population health status

Does the population have good health outcomes and are they protected from preventable morbidities and mortality?

- Substantial improvements in life expectancies, maternal and child survival, fertility rates, and control of infectious diseases, but achievements have been uneven
- Large and rising burden of non-communicable diseases, chronic health conditions, and multimorbidities, fuelled by population ageing
- Emerging challenges of new pathogens, climate change, and antimicrobial resistance pose major threats

### Access

Do all citizens have access to the full range of health services they need when and where they need them?

- Availability of and access to services have improved considerably, but progress has been uneven
- Services for chronic conditions have improved, but many citizens still face barriers to accessing person-centred care
- A large proportion of the population seek care from both public and private sector providers and bypass primary health-care providers
- The public sector has improved provision of drugs and diagnostics, but a vast majority of citizens access these from the private sector, incurring OOPE

### Quality

Do all citizens have access to high-quality health services?

- Clinical quality of care is poor across the health system
- Patient satisfaction and trust in the health system are relatively high despite poor clinical effectiveness

### Financial risk protection

Can citizens access high-quality care without facing financial hardship?

- OOPE has reduced, but people still face financial hardships to access care; health expenses are often catastrophic and impoverishing, especially for lower-income households
- Majority of OOPE are on drugs

## Underlying health system drivers of UHC

### Health-care delivery

- Vertical, curative, and hospital-centric approach; low emphasis on prevention and population health, although new government programmes have focused on comprehensive primary health care
- Fragmented, mixed, and pluralistic health system with little care coordination or clear role definitions
- Skewed and inequitable distribution of providers; challenges of the public sector to attract and retain qualified clinical personnel
- Limited autonomy of public providers make it challenging for them to respond to contextual needs or change practices
- Shortages of recommended diagnostics in the public sector due to fragmented system and multiple small providers, making investments in diagnostic services unviable, and mechanisms for referrals to diagnostic facilities unreliable

### Health financing

- Historically, government spending on health has been limited, which, accompanied by inefficiencies and operational challenges, has slowed systemic reforms
- Shortfalls in affordable, high-quality care at the primary care level make people seek care from hospitals causing high OOPE and system-wide inefficiencies
- Current purchasing mechanisms and provider incentives have scope for strengthening to better encourage efficient, high-quality, citizen-centred care
- Limited incentives to provide preventive and comprehensive primary care
- Irrational care, overuse of drugs and diagnostics, and supply-induced demand due to nature of provider incentives
- Cost escalations due to fee-for-service and case-based payments and incentives to seek care at hospitals (*vs* prevention and primary care)

### Health system governance

- Absence of purchaser–provider split impedes accountability, quality, and efficiency
- Complex and bureaucratic governance design creates fragmentation and a culture of accounting over accountability
- Uneven quality of training and lack of in-service support contributes to low-quality care
- Weak enforcement of existing regulations and standards due to poor institutional capacities at decentralised levels
- Shortages, stock-outs, and leakages of drugs due to complex purchasing mechanisms and corruption
- Lack of health systems-relevant data on population health, providers, and patients weaken governance capability

### Citizen engagement

- Community-based platforms enabling citizen engagement and community action for health have shown improvements in accountability and access but require more support
- Inadequate information for citizens and power imbalances impede the choice of high-quality care
- Citizens have limited support to seek the right health-care services, claim their entitlements, or hold providers and insurers accountable
- Historically, health has fallen behind other priorities on the political agenda, but India's vibrant democracy offers strong foundations for participation and political accountability

### Digital technologies

- Unprecedented technological innovations through Digital Public Infrastructure, AI, and the digital health ecosystem
- Potential for care delivery, coordination, public health and health system data/real-time analyses
- Inequities in access to digital technologies across population groups and regions are a concern
- Concerns of data privacy and protection for users

## Reform actions to address health system challenges and leverage strengths

### Empower citizens to be active stakeholders in the health system

- Strengthen platforms for citizen participation
- Provide citizens with health education and information about the health system's performance
- Ensure the health system commits to addressing social determinants of health

### Implement a person-centred health system through financing, purchasing, and service delivery reforms in the public sector

- Increase government financing and improve the efficiency of spending
- Expand social health insurance to all formal sector workers and integrate it with the tax pool
- Implement a purchaser–provider split and strategic purchasing
- Change provider payment mechanisms to ensure care coordination and incentivise preventative care
- Change non-financial incentives, training, and career development to attract, retain, and motivate providers to deliver citizen-centred care
- Build an integrated delivery system with a foundation of population-based primary health care:
- Comprehensive, active, outreach-focused primary health care
  - High-quality secondary and tertiary care
  - Forward and backward referrals with strong care coordination
  - Services aligned to people's needs and clinical rationale
  - Enabled by digital technologies and artificial intelligence

### Engage the private sector to align with UHC goals

- Incorporate integrated care principles for private sector to incentivise value over volume
- Use regulated competition for the private sector
- Reform voluntary health insurance to pool OOPE in the private sector

### Invest in and scale up diverse technologies to catalyse UHC

- Form public and/or private sector digital health platforms to register patients, providers, and payers
- Pay primary health-care providers through capitation for registered enrollees through public financing for public sector providers and prepayment and voluntary health insurance for private sector providers through digital health platforms to enable loosely coupled versions of the integrated delivery system
- Form referral linkages across levels of care through the digital health platform
- Deploy health-care technologies ensuring equity and address the priorities and privacy of users
- Invest in innovative technologies for prevention, diagnosis, and citizen-centred care

### Enable transparent and accountable governance of the entire health system

- Decentralise health system governance and strengthen institutional capacities to realise its full potential
- Strengthen data systems and consolidate technology-enabled, data-driven governance
- Reform provider education and enforce regulations to assure ethical and competent care
- Regulate the quality of drugs and address irrational prescriptions

### Promote a learning health system

- Use real-world data to design, implement, and refine reforms effectively and affordably
- Include different stakeholders in health systems and policy research, especially frontline workers and administrators, practitioners, policy makers, and citizens
- Strengthen research infrastructure, fund policy-relevant studies, and foster cross-state learning
- Create forums for open dialogue, peer learning, and transparent governance to drive system-wide improvements

Address social determinants of health through intersectoral collaborations

*Figure 20:* **India's UHC achievements and challenges, underlying health system drivers, and proposed reforms**
UHC=universal health coverage. OOPE=out-of-pocket expenditure. AI=artificial intelligence.

and publicly provided integrated delivery system that offers all the health care needed, from public health to the most advanced tertiary care, entirely without cost to every citizen of the country, with no requirements for filing claims or any other paper work. This is for multiple reasons. First and foremost, tax-financed public health-care services are more equitable than any other model of health care.[324] Second, the value of a resilient public sector system was evident in the nationwide response to the COVID-19 pandemic and is reflected in rising population utilisation, preferences for, and confidence in public sector services. Third, the delivery system architecture, a newly established digital public infrastructure, and diverse human resources for an integrated, primary health care-focused system are already in place, as are many policies, programmes, and platforms needed to implement our purchasing and governance reforms. Given the vast heterogeneity in India's private sector, the reforms that we propose for the private sector, which are entirely separate from those for the public sector, are aimed at aligning privately financed and delivered care with the goals of UHC, so that these services provide a valuable supplement to the publicly funded and delivered services, wherever people choose to avail them, and do not derail the intended reforms for the public sector. Reforms towards citizen engagement, better governance, and fostering a learning health system are integral across both sectors. We present a summary of India's UHC goals, health system drivers, and reform options in figure 20 and a summary

| | Current enabling policy | Transformations proposed |
|---|---|---|
| **Reform action 1: empower citizens to be active stakeholders in the health system** | | |
| 1.1: strengthen platforms for citizen engagement and community participation | Decentralisation reforms under the 73rd Constitutional Amendment; existing structures, including community engagement platforms of the National Health Mission (eg, Jan Arogya Samitis, VHSNCs, Mahila Arogya Samitis, Rogi Kalyan Samitis, Jan Samwads, and Jan Sunwaiis), and newer structures (eg, Tamil Nadu's District Health Assemblies and Meghalaya's Village Health Councils) offer an important foundation | Increase investments in capacity strengthening for existing community platforms in partnership with experienced civil society organisations; governance structure of the autonomous purchaser to ensure representation from citizens' groups at all levels; provider incentives to be partly tied to patient feedback along with clinical and service quality metrics; leverage digital innovations (eg, mobile apps, grievance dashboards under Ayushman Bharat, and VHSNC reporting integrated into health management information system) to enhance participation |
| 1.2: provide citizens with health education and information about the health system's performance | Successful participatory learning initiatives in several States; existing common service centres and grievance redressal systems for other social security programmes and AB-PMJAY; patient feedback systems including Mera Aspataal; widespread mobile phone connectivity, DPI, and ABDM infrastructure can be leveraged | Make health system performance data, including clinical quality of care offered by providers publicly available to citizens; set up resource hubs to support citizens in accessing health system benefits, with patient navigators equipped with digital technologies; deploy interoperable, consent-based data flows using the Unified Health Interface of ABDM for citizens to book health services, give feedback, and ensure that referral notes and discharge summaries are shared with their providers; set-up accountability mechanisms through streamlined grievance redressal systems, including a citizen-led complaints commission alongside the appointment of ombudsmen, enhanced with digital technologies and supported by civil society organisations and platforms for citizen engagement |
| 1.3: ensure the health system commits to addressing social determinants of health | Initiatives have been introduced to integrate nutrition, transport, and cash transfers to vulnerable populations as part of several public health programmes | Align health care and social interventions to meet the needs of the most vulnerable population groups; train and support primary care provider teams to identify and support socially vulnerable households in their catchment populations; patient feedback surveys must be designed and weighted to consider differences in the expectations and experiences of socioeconomically vulnerable communities; citizen engagement platforms must include members who represent different castes, communities, and genders, especially vulnerable groups; interministerial collaborations must work systematically to address the root causes of poor health; equitable access to digital technologies must be ensured by addressing barriers that especially affect older adults, women, and rural and tribal households |
| **Reform action 2: implement a citizen-centred health system through financing, purchasing, and service-delivery reforms in the public sector** | | |
| 2.1: increase government financing and improve the efficiency of spending | Government commitments to increase spending to 2·5% of GDP; some States have initiated consolidation across publicly financed insurance schemes and across programmes under the National Health Mission | Address gaps in States with severe shortfalls through Central government allocations or the next Finance Commission's intervention through the Consolidated Fund of India; consolidate fragmented budgets and pools (including the ESIS pool) into the tax pool; expand ESIS coverage to the entire formal sector to include smaller enterprises and remove the wage requirement threshold to include all higher-income employees, and merge ESIS services with the public sector IDS |
| 2.2: implement a purchaser–provider split and strategic purchasing | Partially autonomous National Health Authority and State health agencies set up for AB-PMJAY that manage a small proportion of the health-care budget; existence of the HTA-In and HeFTA under the MoHFW | An autonomous purchaser must be set up through legislation for UHC that serves as a concrete basis for the government's commitments and people's entitlements; it must be governed by a representative board that includes the MoHFW, other line ministries, providers, civil society, professional organisations, and local government; high-level interministerial teams should lead organisational transformation with political buy-in; the purchaser must adopt an evidence-based participatory process in developing a benefits package guided by health technology assessments of the HTA-In and HeFTA, increasing their mandate, authority, and scope; ABDM-backed data systems would support the development and monitoring of provider performance by the purchaser through provider incentives and payment mechanisms |

(Table continues on next page)

| | Current enabling policy | Transformations proposed |
|---|---|---|
| (Continued from previous page) | | |
| 2.3: build an IDS on a foundation of population-based primary health care | Operationalisation of India's Comprehensive Primary Healthcare policy through Ayushman Arogya Mandirs staffed by community health officers; establishing ABDM backbone for health facility, provider, and patient registration, which will enable referral linkages, care continuity, and coordination | Each IDS to consist of a secondary hospital linked to empanelled primary health-care providers and to be responsible for health outcomes of the catchment population; higher emphasis to be placed on the community-based delivery of primary health-care services supported by digital technologies, to eventually serve as gatekeepers for coordinated care in the integrated system; each IDS to offer a comprehensive benefits package determined by the purchaser |
| 2.4: strengthen secondary care to provide high-quality specialist services and coordinate the delivery system | Guidelines issued for implementation of the Public Health Management Cadre to meet requirements of specialists and health management professionals; specialist shortfalls being addressed through promising new models of technology-enabled care supporting public hospitals in India | Upgrade designated secondary health-care facilities and provide a certain level of autonomy; strengthen capacities for specialist care through task-sharing with non-specialist physicians; increase enrolment capacity for priority medical specialties, such as the Diplomate of National Board Surgery, and offer professional advancement and family support services for those who serve in low-resource contexts; rapidly operationalise the Public Health Management Cadre |
| 2.5: motivate providers to deliver high-quality, citizen-centred care | MoHFW 2022 guidance for States to regularise community health officers; introduction of handheld devices and digital tools to support service delivery and payments for community health workers; performance-linked team incentives form a part of the Comprehensive Primary Healthcare policy | Regularise community health officers and provide adequate fixed salaries and incentives for accredited social health activists; operationalise digital tools to support technology-enabled care coordination, diagnostics, and clinical decision-support systems; change provider payment mechanisms to incentivise competent, compassionate, and citizen-centred care; transition towards blended payment models built on capitation and global budgets linked to performance metrics |
| **Reform action 3: engage the private sector to align with UHC goals** | | |
| 3.1: steward the private sector towards integrated care | No specific regulations currently exist; some commercial insurers offer limited products that are integrated with wellness services to focus on disease prevention | Introduce regulated competition principles in currently offered indemnity-type insurance, focusing on the prevention of disease and optimising health outcomes, defining a network of providers, designating outpatient or routine care providers who act as gatekeepers and coordinators of care, and aligning purchaser and provider incentives, risk equalisation, and prevention of risk selection; establish regulatory mechanisms to support the above changes while protecting patient rights, accountability of private payers and providers, and the cost of insurance and prepaid care; reform provider reimbursement methods from fee-for-service and case-based methods that only incentivise volumes to blended payments of performance-linked capitation and global budgets |
| 3.2: Reform voluntary insurance to reduce OOPE | Some regulations introduced by the Insurance Regulatory and Development Authority of India to increase access include removing age limits on buying new health insurance policies, reducing waiting periods for coverage of pre-existing diseases, and extending coverage to individuals with severe conditions | Reduce entry barriers for insurance companies by reducing the current minimum capital requirement and licensing cooperatives and small insurers, but with a robust framework of re-insurance and associated risk-based capital allocation; enhance regulations that minimise risk selection, adverse selection, health-care cost inflation, and mandate comprehensive benefits through capitation-based payment models for providers; expand the role of pharmacists under the supervision of clinicians to support primary care provision and control irrational drug prescriptions |
| **Reform action 4: invest in and scale-up diverse technologies to catalyse UHC** | | |
| 4.1: deploy and scale-up appropriate technologies | The ABDM infrastructure provides a basis for setting up this mechanism; the Swasth Alliance, private sector aggregators (eg, Medibuddy and Practo), and third-party administrators (eg, MediAssist and Vidal Health) already play many of these roles | Facilitate the integration of health-care providers, payers, and patients through digital platforms by enabling health data exchange, care coordination, structured communication, and making provider payments, enabling the formation of a loosely coupled version of the IDS |
| 4.2: health technologies must be equitable and address the priorities and privacy of users | India's unparalleled developments in DPI, AI, and biotechnology; government investments (eg, the Universal Service Obligation Fund) to offer universal optic fibre connectivity | Prioritise stakeholder needs, equity, and privacy while ensuring regulatory safeguards; address digital literacy, infrastructure gaps, stakeholder incentive alignment, and interoperability for widespread adoption of digital technologies; deploy digital tools to train and support primary care providers and facilitate high-quality care through technology-enabled care coordination, diagnostics, and clinical decision-support systems; expand HTA-In to validate AI-driven health innovations; dynamically adapt legislation on digital technologies and data protection to the fast-evolving health technology sector |
| 4.3: invest in innovative technologies for prevention, diagnosis, and citizen-centred care | Unprecedented development in research, technologies, and tools in medicine and public health | Enable cutting-edge innovations (eg, precision medicine, point-of-care diagnostics, gene therapies, and AI-enabled clinical tools) to drive equitable, citizen-centred care; establish clear and expedited regulatory pathways for evaluating and approving affordable, homegrown technologies designed for Indian conditions; establish a HealthTech Innovation Fund as a public–private venture for scaling homegrown tools to achieve system-wide impact |
| **Reform action 5: enable transparent and accountable governance of the entire health system** | | |
| 5.1: decentralise health system governance and strengthen institutional capacities to realise its full potential | 15th Finance Commission recommendations call for increased flexibility to States and districts in planning the use of funds from centrally sponsored schemes, including building local government capacities; Mission Karmayogi aims to build capacity, develop competency, and promote digital learning for civil servants | Clarify roles and responsibilities at different governance levels; increase the efficiency of fund flows and simplify procedures for their use; move from a culture of accounting to holding institutions accountable for improving health outcomes; NHSRC, SHSRCs, and NITI Aayog to support the development of managerial skills for decentralised capacities; introduce structured leadership development initiatives across all levels of government, with integration of health sector-specific content into the government of India's Mission Karmayogi |

(Table continues on next page)

| | Current enabling policy | Transformations proposed |
|---|---|---|
| (Continued from previous page) | | |
| 5.2: strengthen data systems and consolidate technology-enabled, data-driven governance | ABDM resources and Integrated Health Information Platform guidelines, launch of the National One Health Mission and the NITI Aayog Public Health Surveillance Plan 2035 lay a foundation for these initiatives; legislation (eg, Digital Personal Data Protection Act [2023], the draft Digital Information Security in Healthcare Act, and the National Data Governance Framework Policy) aims to establish clear laws and standards to manage and use data effectively while ensuring privacy, security, and ethical and equitable access | Participation in disease surveillance and registration in the provider and facility registries of the ABDM to be made mandatory for private and public providers; district-level, block-level, and local-level governments to be supported by timely, relevant data for planning; build decision-support dashboards at the district and block levels that are linked to ABDM and State Health Agency data, enabling health facility managers to track performance, identify gaps, and design reforms more effectively; strengthen the National Centre for Disease Control to function as an autonomous focal authority for public health surveillance and health emergency preparedness |
| 5.3: reform provider education and enforce regulations to assure ethical and competent care | Recent reflections of the NEET and medical education reforms, including private sector regulation | Regularly update medical curriculum with emphasis on primary health care and community-based practicums; introduce mandatory in-service training and periodic re-certification of providers; establish a national digital platform for continuing medical education that is integrated with the ABDM's provider registries to deliver modular training, enable re-certification, and track provider competencies; introduce foundational training in traditional medicine systems into the MBBS curricula; reform NEET to make it more equitable for students from rural and disadvantaged backgrounds; address persisting constraints of the National Medical Council and increase capacities of State medical councils to affix accountability; implement the Clinical Establishments Act nationwide through enabling mechanisms such as the autonomous public sector purchasing institution and empanelment mandates of health insurance companies and digital platforms |
| 5.4: regulate the quality of drugs and address irrational prescriptions | Prescription audits form a part of the National Quality Assurance Standards for public facilities; semiautonomous drug procurement agencies have been set up in several States; information technology-enabled supply chain management of medicines, including systems such as the Drug and Vaccines Distribution Management System have been initiated across several States | Central Drugs Standard Control Organisation to be made autonomous and considerably strengthened with financial and human resources and must make its systems interoperable to improve patient access and the timely delivery of new therapeutics; bring drug regulation under the Constitution's Union List to ensure uniform quality control across the country; regularly update essential drug lists to reflect diverse epidemiological disease burdens and evidence on cost-effectiveness; digitise drug sales and inventory management to avoid stockouts and leakages and audit prescription practices; establish a national e-procurement marketplace with integrated digital inventory management at all provider levels to expand pooled purchasing, ensure transparency, and prevent stockouts and leakages; collaborate with the Indian Pharmacists Association to promote better pharmacy practices |
| **Reform action 6: promote a learning health system** | | |
| 6.1: foster a learning health system by embedding reflexivity, participatory approaches, and leadership that champions continuous learning and improvement | Government, academic, and non-government initiatives in research and collaborations to design evidence-informed policies | Build an ecosystem in which knowledge flows effortlessly between researchers, policy makers, health-care providers, payers, and citizens, while championing transparency and accountability; foster synergies between the Department of Health Research (MoHFW) and the Anusandhan National Research Foundation through a joint platform to steward and finance transdisciplinary, intersectoral health systems and policy research; National Health Authority, NITI Aayog, NHSRC, and SHSRCs to join such a platform to communicate research needs, share implementation lessons, foster evidence use in policy and practice, and embrace a culture of reflection, peer learning and continuous improvement; support research capacities to generate and use actionable data for decentralised decision-making; incentivise academic and clinical researchers to engage in policy-relevant studies; integrate learning health system principles into the training curricula of medical and public health institutions to nurture a workforce capable of driving systemic reforms; shift from a compliance-driven approach to a learning-focused health system by strengthening competencies, institutionalising learning, and fostering collaboration to embed best practices and drive sustainable transformation |

VHSNC=Village Health, Sanitation, and Nutrition Committee. AB-PMJAY=Ayushman Bharat Pradhan Mantri Jan Arogya Yojana. DPI=digital public infrastructure. ABDM=Ayushman Bharat Digital Mission. GDP=gross domestic product. ESIS=Employee State Insurance Scheme. IDS=integrated delivery system. HTA-In=In=Health Technology Assessment Agency. HeFTA=Health Financing and Technology Assessment unit. MoHFW=Ministry of Health & Family Welfare. UHC=universal health coverage. AI=artificial intelligence. NHSRC=National Health Systems Resource Centre. SHSRC=State Health Systems Resource Centre. NITI Aayog=National Institution for Transforming India. NEET=National Eligibility cum Entrance Test. MBBS=Bachelor in Medicine, Bachelor in Surgery.

***Table:*** **Summary of reform actions**

of our reform actions and strategies is provided in the table. We intend for our reforms to be adopted only after extensive consultations with local governments, civil society, researchers, and health-care providers in both public and private sectors to ensure they are acceptable and adaptable to local needs. Once adopted, we recommend incorporating these diverse perspectives in priority-setting, co-creating and committing to local health plans, and supporting their staggered implementation, continuing evaluation and refinement, and ultimately, scale-up.

## Reform action 1: empower citizens to be active stakeholders in the health system

### *1.1: strengthen platforms for citizen engagement and community participation*

Community participation and citizen engagement in the health system requires a redistribution of power that

enables communities to have meaningful roles in the planning, decision-making, and delivery of services and to be empowered to hold systems accountable.[325] India already has a strong foundation for community participation and citizen engagement in the health system, as documented previously; for example, decentralisation reforms under the 73rd Constitutional Amendment and the NHM's institutionalised community action for health through VHSNCs—linked to Panchayats—and RKS to promote accountability. The challenge is not the absence of structures, but their under-resourcing and uneven capacity. Reform must therefore focus on strengthening, financing, and digitally enabling existing community platforms to continue playing an essential role in the participatory governance of health systems in partnership with experienced civil society organisations. Along the lines of Jan Samwads and Jan Sunwaiis, regular consultations should be conducted district-wide to maximise citizen participation, allowing for a comprehensive discussion on their health needs, existing gaps, and optimal solutions. These consultations should actively involve elected local functionaries from Panchayats and municipal councils.[299,326] Additionally, this Commission recognises the importance of supporting efforts towards Right to Health bills that are underway in some States through consultative processes with diverse stakeholders. Strengthening citizen engagement is crucial for decentralised governance. Structures such as Tamil Nadu's District Health Assemblies and Meghalaya's Village Health Councils could design and review health policies in partnership with communities and elected local bodies. Although local features will necessarily vary, this range of institutional mechanisms provides examples of how States can promote a rights-based approach to health by ensuring community participation in the planning, delivering, and monitoring of health services. The autonomous purchasing system (reform action 2.2) is another important platform for citizen engagement, and we recommend that its governance has representation from diverse stakeholders, including citizens' groups, at all levels and that part of provider incentives be tied to patient feedback along with clinical and service quality metrics. Digital innovations—including grievance dashboards under Ayushman Bharat, and VHSNC reporting integrated into the Health Management Information System—point towards the role of technology to enable participation. This Commission recommends sustained investments in capacity-building, civil society partnerships, and digital tools to catalyse these mechanisms to ensure that citizens' voices meaningfully shape health governance.

*1.2: provide citizens with health education and information about the health system's performance*

To address information asymmetries, it is important to undertake participatory health education and health promotion initiatives for citizens to generate awareness about their health rights and entitlements, preventive health, health services, and responsibilities of health providers and local health officials. India has several successful experiences on this front. Investment in participatory learning and action processes could build individual and community capacities to take charge of their health and promote local solutions.[70] These health education initiatives must be designed with the active participation of local communities, especially marginalised groups such as women, informal sector workers, migrants, and socioeconomically vulnerable castes and tribes. Digital health records via ABHA IDs aim to strengthen citizens' access to health information and easier access to care. Dedicated technology enablers that can be deployed include interoperable, consent-based data flows using ABDM rails such as ABHA IDs, registries, and consent managers, which together form a common backbone for both public and private sector health systems. The Unified Health Interface of ABDM can further support better access to health information and services by allowing citizens to book services, give feedback, and ensure that referral notes and discharge summaries are automatically shared with their providers through simple patient or one-time password-based consent. Citizen engagement should promote the use of primary care as the first point of call, along with community mobilisation and information focused on the value of prevention and health promotion (particularly in the context of non-communicable diseases), and awareness about the harmful effects of irrational treatments, AMR, and the effectiveness of generic drugs. Generic medicine access programmes such as Jan Aushadhi and national campaigns on AMR further reinforce awareness of safe and cost-effective treatments. Voice bots and Interactive Voice Response systems in local languages can be used for appointment reminders, medicine refill prompts, and health tips. To engage providers, lessons from initiatives including Choosing Wisely—implemented in over 30 countries including India—could offer valuable lessons for designing these interventions.[327] However, even with increased awareness about health entitlements, navigating the processes to access the benefits might be challenging for several beneficiaries, especially those from marginalised and low-income groups. Drawing on past experiments under the NHM, one way to address this is to create resource and information hubs, either through local centres or digital platforms, run either by the government or civil society organisations, and to deploy patient navigators from local communities, especially women. These information hubs can support citizens in navigating entitlements such as AB-PMJAY insurance, grievance redressal, and referrals, using ABDM digital platforms and teleconsultations through eSanjeevani. These patient navigators, either on the phone or digital platforms or at designated locations, could help beneficiaries with the

administrative procedures, inform their caregivers about their entitlements (eg, insurance benefits), liaise with insurers and providers on their behalf, and complement the expanded role of primary care providers in guiding an individual's health-care journey. In urban areas, reforms could include ward-level citizen forums linked to urban primary health centres, AAMs, and outreach clinics in migrant hubs offering flexible hours to specifically cater to informal workers and migrants.

Additionally, the government should publicise health entitlements, schemes, and services through on-ground outreach and social media. Information asymmetries that affect citizens' assessments of the quality of care can be overcome by providing appropriate information on the range of services and the clinical quality of care offered by providers in both public and private sectors,[239] and be accessible via ABDM-linked platforms to citizens directly via Interactive Voice Response systems or messages over mobile phones. Facility-level quick response codes, patient feedback apps, and grievance hotlines (integrated into ABDM) can build trust and accountability. Relevant performance indicators, such as those used to inform provider payments by the autonomous purchaser (reform action 2.2), could be made publicly available to build trust and confidence in the health system. Such validated data, together with quarterly anonymised publication of complaints, resolution rates, and corrective actions, would inform citizen decision-making, empowering citizens to hold elected representatives accountable for delivering high-quality services. These should be reinforced by protection norms such as whistle-blower safeguards and anti-retaliation protocols for patients and staff who report safety lapses. The role of civil society organisations and platforms for citizen engagement in health could include facilitating such processes that are focused on building trust in health systems. We propose constituting a citizen-led complaints commission at the Central, State, and district levels, alongside the appointment of ombudsmen, in which the entire process—from the receipt of a complaint to its resolution—is monitored and tracked, and officers at every level are held accountable for the timely and effective handling of complaints. Such redressal systems can be catalysed through deployment of digital technologies. Regular local grievance settlement days should be organised to further ensure transparency and accountability in addressing public grievances with the health system in a timely way.

#### *1.3: ensure the health system commits to addressing social determinants of health*

Social determinants of health, such as caste, class, gender, religion, and income, as well as early childhood education, food security, housing, and living conditions, among others,[328] play a central role as constraints and enablers of equitable citizen engagement in health and progress towards UHC. Structural inequities and power dynamics, particularly related to gender, income, and sociocultural identities, underlie each aspect of UHC.[328] Although the systemic actions to address these inequities often take place outside the health sector, the health system often mirrors these structural inequities. Thus, this Commission underscores that the health system must play an active role in confronting these inequities by ensuring that the priorities of health-care delivery are aligned with the needs of the most vulnerable groups in the population, that all citizens receive the same quality of care regardless of their ability to pay or their identity, and by ensuring that intersectoral interventions are integrated with health care, such as affordable and reliable public transportation to improve access to health-care services and provision of nutrition and housing. Towards this objective, health-care providers must be adequately trained and supported to master competencies to recognise and address health equity concerns. This is especially true for primary care provider teams who would be trained to identify socially vulnerable households in their catchment populations (such as low-income migrant workers in urban areas or vulnerable groups in tribal regions), provide relevant information and empathetic support in accessing care, and provide information on the care pathways, making them partners in wellness journeys. To support providers' continuous learning, microlearning modules, simulation exercises, and decision-support algorithms could be integrated via digital learning tools.

Effective regulations and grievance redressal mechanisms against discriminatory practices by providers and insurers need a special focus on vulnerable groups. Patient feedback surveys in both public and private sectors must be designed and weighted to consider differences in the expectations and experiences of historically marginalised communities.[329] As noted previously, it is important to ensure that citizen engagement platforms and governance bodies include members who represent marginalised groups.

Empowering citizens to engage with the health system must be complemented by multisectoral action to address the root causes of poor health. The MoHFW and DoH need to actively collaborate with other ministries and departments (eg, the Ministries of Finance, Women & Child Development, Labour, Environment, Agriculture, and Urban Development) to tackle persisting root causes such as food and employment insecurity, sanitation, and climate change. Intersectoral collaborations include participating in dialogues on so-called sin taxes and ensuring their design effectively reduces consumption of unhealthy substances and foods while generating revenue for health promotion. Given the cross-sectoral nature of such actions, leadership and direction might need the intervention of the Prime Minister's Office. Digital convergence offers new opportunities: platforms such as Poshan Tracker, NIKSHAY, and

ABDM-integrated registries enable multisectoral tracking of nutrition, tuberculosis, and chronic disease outcomes, respectively, allowing more tailored interventions for vulnerable groups.

### Reform action 2: implement a citizen-centred health system through financing, purchasing, and service-delivery reforms in the public sector

#### *2.1: increase government financing and improve the efficiency of spending*

This Commission underscores that government health spending in India needs to substantially increase so that the country can strengthen and sustain a health system that meets the current and future needs of its citizens. Calls for increased government health spending are not new; successive governments have promised to raise health budgets to 2·5–3% of GDP, and various stakeholder groups, ranging from civil society to physician and industry associations, have recommended such increases,[27,29,330,331] but this promise is still to be fulfilled. That said, our analyses also show that GHE per capita already meets our estimate for UHC in several States,[332–334] which suggests that these States should be able to provide UHC even at current spending levels, provided these funds are efficiently used. Several other States have deficits that could be met by them over time with their internal resources, but there are a few States that face such severe challenges of fiscal space that they are unlikely to reach the desired levels of health spending for the foreseeable future without the Central government's assistance at their current levels of per-capita State GDP. To address these challenges, we recommend that additional necessary funds for low-resource States and low $UHC_d$ districts should be provided through Central government allocations, such as by the next Finance Commission through the Consolidated Fund of India.[15] Designing such transfers will require explicit formulae, conditionalities, and monitoring frameworks so that equity goals are achieved.

Irrespective of the level of health spending, this Commission recommends consolidating the fragmented budgets of the DoH and their various directorates, as well as budgets across vertical programmes, including NHM and AB-PMJAY. These should be eventually extended to include the ESIS pool, as well as relevant components of the Defence and Railway health services. States would decide on the extent and timing of consolidating funds across programmes and could choose to retain certain line items based on local priorities for predefined periods, with the ultimate goal that budgets for these programmes would either be integrated into the consolidated pool over time, or phased out once the programmes had completed their mandates.[49] Several States have already begun modest efforts at consolidating funds to avoid fragmentation of their service-delivery budgets across multiple schemes; these efforts need to be enhanced, and lessons from their consolidation processes must be shared with other States.[335]

An additional source of mobilising resources for the public sector is leveraging the existing social health insurance scheme, ESIS, to collect contributions, while consolidating them with the tax resources. Currently, ESIS requires enterprises with ten or more employees with wages up to INR 21 000 per month in specific economic sectors to enrol in it. Until 2019, ESIS paid out less than half of its revenue in benefits, thereby accumulating a vast reserve fund and turning a substantial profit each year, implying that current beneficiaries did not receive the services they paid for through premiums.[211] One key reason for the low payout is the limited ESIS provider network, with beneficiaries unable to get the services they need.[212] In 2019, responding to demands from businesses, the government reduced the contributions by almost 40%,[336] leading to a sharp drop in the quantum of contributions mobilised.[337] ESIS currently covers around 10% of the population, including policy holders and their family members. We recommend restoring ESIS contributions to the earlier levels and expanding its coverage through legislative changes to the entire formal sector by expanding the number of employees to include smaller enterprises and removing the threshold of wages to include all higher-income employees, to increase coverage to nearly 14% of the country's population. Expanding to higher-income earners would present the opportunity to raise more resources and lead to increased and more vocal demands for improvements in the quality of health care and efficiency.[338] Importantly, as India's economy formalises, the expanded ESIS would generate more resources for UHC. With these added funds, the Commission recommends merging ESIS funds with tax resources, ideally through the NHA (reform action 2.2), and to merge the ESIS network of hospitals with those of the Integrated Delivery System (reform action 2.3).

#### *2.2: implement a purchaser–provider split and strategic purchasing*

Purchaser–provider split reforms have been pursued in several countries across income groups to improve the efficiency and accountability of the health system.[339–341] This separation reduces conflicts of interest and drives improvements in service quality and patient outcomes, compared with a system in which DoHs control both funding and care provision, which can lead to inefficiencies and limited accountability. Such a separation of the government's purchasing and provision functions builds on the existing NHA and SHAs to form the foundation of an autonomous purchasing system. Eventually, as this system matures into its revised roles and accountability structures, the SHAs would be responsible for strategic purchasing, while the MoHFW and DoH would retain stewardship and management

functions for health service delivery. These reforms call for DoH to improve their capacity to guide, oversee, and enforce rules required to decentralise responsibilities.[342]

Although the NHA and SHAs provide suitable starting points for an effective purchasing system, they will require investments in staffing, competencies, and organisational reforms to realise their full potential and institutional expertise. With the strengthening of these autonomous purchasing institutions, the consolidated health budgets would be with these agencies. Each SHA would purchase services from their State's DoH through blended payments (reform action 2.5). Once capacity has been built in district-level hospitals or administrations, the SHA could ultimately allocate decentralised budgets, which in turn would plan comprehensive service delivery in the district and fund and manage services at the subdistrict levels in collaboration with local governments. As this would require substantial capacity-strengthening of district hospitals or local institutions, some States might introduce this reform gradually and initially choose to have the SHA purchase directly from the DoH at the State level.

The purchaser would adopt an evidence-based participatory process in developing a benefits package guided by health technology assessments of HTA-In and HeFTA,[343] costing studies, and participatory governance structures (reform action 5.1). This would require an increased mandate, authority, and scope for HTA-In and HeFTA. The purchasing system at decentralised levels would be responsible for periodically updating the benefits package to reflect local contextual needs, informed by the evidence generated through regular data collection (reform action 5.2). The purchaser would set relevant metrics and monitor performance and quality indicators through regular data collected from all public sector providers. Given the importance of having providers share data on the ABDM, completeness and regular updates of their profiles on the ABDM provider portal and the use of the quality and health outcome metrics could be selected as performance indicators. Robust evidence from India shows that real-time dashboards, automated claims adjudication, and digital beneficiary verification can reduce leakages and strengthen efficiency. India can build on the ABDM and its strong digital ecosystem to design and scale such innovations.[344,345] Evidence from countries that have implemented purchaser–provider splits indicates that their effective implementation is contingent on the institutional capacities and the sociopolitical context.[342,346,347] Moreover, long-standing bureaucracies within nationally owned and operated health systems might resist organisational transformations that would diminish the MoHFW and DoH's power.[342] To navigate this, such reforms must be spearheaded through high-level interministerial teams, backed by political buy-in, arguably from political leadership of the Central and State governments, to effect institutional change and organisational transformation of the health system.[342] Similar to other countries, the governance structure of the autonomous purchasing institution must be overseen by a board representing various agencies within the MoHFW, other line ministries, providers, civil society, professional organisations, and local government.[348–350] A constitution of the board that facilitates participation, transparency, and consensus in decision making would enable the system to be responsive to the contextual needs of its stakeholders. Thailand and Uruguay's experiences in designing and implementing such participatory governance for citizen-centred purchasing provide valuable lessons.[348,349]

We also recommend a legislative mandate to reform the roles of the purchaser and the MoHFW and DoH. Such legislation would ensure requisite autonomy for the purchasers to remain separate from service delivery and hold the DoH accountable while themselves being held responsible for a mandate to ensure UHC. Notably, such legislation would legitimise and institutionalise the transformative governance changes and confer the mandate for UHC on the autonomous purchaser, serving as a concrete basis for government commitments and people's entitlements and setting the foundations for a meaningful Right to Health.

### 2.3: *build an integrated delivery system on a foundation of population-based primary health care*

We recommend addressing the deep fragmentation of the health system by designing catchment population-based Integrated Delivery Systems (IDSs). Each IDS would consist of a secondary hospital, ideally a district or subdivisional hospital, and a network of empanelled primary care providers throughout the secondary hospital's catchment area. Each IDS would have a defined, clearly identified (at an individual level, by name) catchment population for whose health outcomes it would be responsible and accountable. Given India's diversity, the ideal size of the catchment population for an IDS unit would have to be contextualised based on available resources, urban–rural realities, geographical terrain, and population density and distribution. The IDS would offer a comprehensive essential benefits package determined by the purchaser. Extensive consultations would be conducted with civil society organisations, local elected representatives from Panchayats and municipal councils, district-level health officials, and providers to elicit their inputs on how the IDS could be best contextualised to their States and districts. Furthermore, as noted previously, the IDS will be anchored in a broader, citizen-centric governance structure to address equity and include people's voices (reform action 1).

Primary health care would be comprehensive and outreach-focused, involving community-based health promotion efforts inclusive of evidence-based AYUSH interventions, prevention and screening, ambulatory

services with appropriate essential drugs and diagnostics, continuing and multilayered care of chronic diseases and mental health conditions, and palliative and rehabilitative care, alongside multisectoral action on social determinants of health. The empanelled primary care providers would be the first point of care (except in emergencies), which is a design feature to respond to the preference of an overwhelming 87% of respondents of the Citizens' Survey (2023), with 82% of respondents expressing a preference for being regularly visited by a community health worker. A key objective of our reforms is to build a trusted relationship between people and their primary care providers through nurtured human connections and high-quality and accountable care, thereby improving citizens' experiences with the health system and promoting higher uptake of primary care.[351]

Based on clinical guidelines and care pathways, clearly defined referral mechanisms would guide primary care providers to refer patients who need specialist care to the catchment hospital. With the substantial expansion of primary care service capacities and providers, individuals will have continuous access to services, including acute and basic curative care. The hub of the IDS—ideally a district hospital—would be equipped to provide high-quality inpatient care and build service capacities for all clinical specialties recommended by the IPHS norms enhanced with workload-based staffing criteria. Each IDS would have linkages with empanelled public sector tertiary hospitals for onward referral for superspecialty care. Where, in its judgement, there are gaps in the ability of the public sector to offer a required service, the IDS could choose to refer patients to and purchase from the private sector using an approach modelled on Karnataka's Online Referral System.[352] These could be used to address crucial gaps in specialised services including mental health, neurodevelopmental disorders, and palliative care. India's rich experience of NGOs in delivering health-care services could provide valuable lessons.

Provider roles would be based on clinical rationale and citizen-centredness, for example, shifting routine non-communicable disease management to primary care and childbirths to adequately equipped high-volume facilities with emergency obstetric and neonatal care and Alongside Midwifery Units, which are specialised maternity care facilities in which midwives lead the care for women with low-risk pregnancies. These units are typically located within or adjacent to a hospital, allowing for easy access to more advanced medical interventions if needed, such as obstetricians or surgical facilities. Context-specific models for facilitating access to emergency obstetric and neonatal care services being implemented in Tamil Nadu and Meghalaya might offer insights for wider application.[228] An IDS would also involve backward referrals, in which the secondary hospital refers cases to the primary providers for continuing care, antenatal care, and vaccinations. Virtual care platforms and digital clinical decision-support tools would be crucial for timely, evidence-based care and referral systems and to expand the scope of high-quality services delivered by primary and secondary care providers. Digital technologies, aided by the ABDM's provider data and unique ABHA ID-linked interoperable electronic health records, would be the backbone for enabling referral linkages, care continuity, and coordination. Drawing lessons from other public benefit schemes, special attention must be paid to the portability of enrolment and seamless access for the millions of migrant workers. They would be able to transfer to an IDS in their current place of residence for the duration of their work or stay in that location. Once the person returns to their place of permanent residence, they would revert to their original IDS.

Gatekeeping is one of the key features that would make the IDS different from the existing government architecture. Global evidence suggests that primary care gatekeeping for secondary care lowers spending and improves health outcomes, as beneficiaries do not bypass cheaper primary care to access more expensive hospitalisations,[232] while also optimising patient experience and citizen-centredness. However, the effectiveness of gatekeeping depends on the ability of primary care providers to offer the required care and act as good agents in managing and coordinating patient care follow-up.[232] Therefore, in States or districts where primary care services are adequately resourced and of good quality, these would act as gatekeepers to higher levels of care within the IDS. In other contexts, primary care capacities must be systematically built before gatekeeping is introduced. Different arrangements for the IDS would need to be evaluated through careful research, as discussed in reform action 6.

### *2.4: strengthen secondary care to provide high-quality specialist services and coordinate the delivery system*

IDSs will require substantial strengthening of public sector secondary care facilities, which are expected to take full responsibility for managing the IDS for each catchment population. Hence, upgrading secondary care facilities, including districts and subdivisional hospitals and community health centres, and addressing gaps in their service capacities would be required to meet each district's prescribed service-delivery standards to set up the requisite number of IDS units at subdistrict levels. Although many district hospitals already offer advanced services, there are several shortfalls in meeting their intended standards, especially in attracting and retaining specialists.[46] Specialist clinical training programmes including the Diplomate of National Board have played an essential role in increasing the availability of specialists. An increase in enrolment capacity is recommended for priority areas such as the Diplomate of National Boards in Rural Surgery.[353] Instances of discriminatory practices against hiring Diplomate National Board-qualified

versus MD/MS-qualified doctors as specialists and teachers in public hospitals must be addressed.[198] Supportive measures to improve doctor retention are required, such as offering professional advancement opportunities to those who serve in low-resourced contexts and opportunities for their children's education and spouses; such concessions are already offered in many States as well as in sectors such as in defence and railways, and offer important lessons.[354,355] We further recommend strengthening capacities for specialist care through task-sharing of specific roles with non-specialist physicians, similar to initiatives that have successfully increased access to emergency obstetric care.[356] Promising new models of technology-enabled care, such as the 10BedICU (figure 17), offer examples for decentralising and scaling up specialised care by empowering trained non-specialists to manage critical care cases under remote supervision from specialists, and ensuring that high-quality hospital care reaches underserved areas while optimising the use of limited health-care resources.[292,357] Secondary hospitals will need to be given a high level of autonomy to manage the IDS and purchasing arrangements. Capacity gaps could be addressed by increasing the recruitment of the recently announced Health Management Cadre[358] at the block and district health administration levels deploying India's growing number of graduates in public health. With specific qualifications in public health management and hospital management as well as specialisations in operations, finance, and human resource management, their roles would include organising health-care providers into IDSs and managing their operations.

*2.5: motivate providers to deliver high-quality, citizen-centred care*

We recommend transitioning provider payment mechanisms towards global budgets and capitation-based blended payment models that incentivise quality and efficiency.[359] Although some of the current line-item budgets and salaries would continue for public sector providers, the purchasing agency would use consolidated government funds to give each IDS secondary hospital a global budget, a proportion of which would be linked to performance. The hospital, in turn, would provide a performance-adjusted and risk-adjusted capitated budget to the primary care facilities. The global and capitated budgets would be for the full set of services, including medicines and diagnostics, which are the leading causes of OOPE. Examples of metrics for performance-linked payments to the IDS include the number of patients screened for non-communicable diseases, availability of drugs and diagnostics, patient outcomes, patient experience ratings, and adherence to standards of care for a selected list of common conditions. The value-based payments proposed by the Central government could be adapted to inform these payment reforms.[236] These strategic purchasing reforms would need to be accompanied by increased autonomy of public sector facilities at all levels and governance reforms to strengthen institutional and data capacities (described below). Health-care providers must be supported in performing their roles through the human resource management division staffed by the Health Management Cadre.[358] Ensuring open channels for grievance redressal, regular payment of salaries (eg, through adopting digital applications that support payment processes), protection against violence and harassment, a constructive supervision protocol, and providing access to counselling are examples of such strategies. The reliance on non-physician cadres in primary care calls for measures to attract, motivate, and support these providers to deliver high-quality care. Following the MoHFW's guidance in 2022, we recommend that States should regularise community health officers and provide them with social security benefits. ASHAs should be compensated with a combination of adequate fixed salaries and performance-based incentives,[360,361] paid on a timely basis, and offered a career pathway and training geared towards higher roles, including auxiliary nurse midwives or community health officers, thus paving the way for a single, highly skilled and well equipped community-based workforce.[220] Some States such as Andhra Pradesh, Kerala, Karnataka, West Bengal, and Sikkim have already embraced these strategies and we recommend adoption by all States.

### Reform action 3: engage the private sector to align with UHC goals

The private sector is a major health-care provider in India, providing substantial contributions particularly for outpatient care, specialist medical care, diagnostics, and medicines.[34] However, the private sector's immense diversity and architecture (section 2), with no coordinated governance and predominantly fee-for-service payments, does not motivate it to pursue population health outcomes. To set the country on the path to achieving UHC, not only must the public sector be strengthened as emphasised in our clarion call above, but we must also find ways to align the interests of the private sector with these goals. This alignment is crucial, even if the private sector's role in the IDS (reform action 2) is limited to offering supplementary services for needs that the public sector cannot fully meet. Any expansion of this role must be contingent on greater accountability, transparency, and alignment of incentives with national UHC goals, which would require systemic reforms in governance and their effective enforcement (reform action 5).

Failure to align the private sector with UHC goals could result in inflationary pressures, as seen in many countries, putting the goals of UHC permanently out of reach by, for example, making it impossible for the public sector to recruit the specialists it needs. Given the heterogeneity of India's large private sector, this Commission has focused its recommendations on creating suitable conditions to shape the market—including the role of the state—to enable the private

sector to align with UHC goals. To make such private sector engagement feasible and sustainable, India will require systematic regulatory capacity mapping, actuarial and policy modelling to guide insurance integration, and rigorous pilot and evaluation designs to test reform pathways before scale-up. We recommend piloting diverse models to engage the private sector in various contexts, generating sufficient evidence on their impact in achieving equitable health outcomes, with a particular focus on addressing the needs of the most vulnerable at scale. These evaluations must incorporate feedback mechanisms from all stakeholders, especially citizens, patients, and providers, not just administrators and payers. Technology and governance reforms are essential enablers to support these processes, ensuring that engagement with the private sector remains transparent, accountable, and measurable (reform actions 4 and 5).

*3.1: steward the private sector towards integrated care*

One important innovation in private sector health systems has been the adoption by many countries of integrated care principles that shift financial incentives from maximising profits from increasing numbers of medical procedures to preserving population wellbeing and using competition and regulation as disciplinary tools (also known as regulated competition).[362] These principles—which include a range of strategies, such as focusing on the prevention of disease and optimising health outcomes, defining a network of providers, designating outpatient or routine care providers who act as gatekeepers and coordinators of care, aligning purchaser and provider incentives, risk equalisation, and prevention of risk-selection—have the potential to ensure that patients receive high-quality, cost-effective care at scale.[363–366] Across all private providers, initially, the empanelment criteria could include verified qualifications and registrations of providers, convenience of location and opening hours for users, patient volumes, and records of drug stocks and basic diagnostics. As essential prerequisites, these providers must show clinical competence and compliance with robust regulatory mechanisms including grievance redressal and ombudsmen (reform action 1.2) to ensure that patients' rights are upheld, high-quality care is provided, and to enforce penalties for denial of care, overcharging, or irrational care. As the ABDM matures, data from its registries could be used to assess providers for empanelment. Introducing regulated competition needs to be a gradual process, and enacting required regulations is an essential first step. It would also need some degree of consolidation and scale, at least for secondary care facilities, which might present challenges given the fragmentation of the private sector. Additionally, poorly governed systems risk fostering monopolistic tendencies, leading to denial and underprovision of care, inequitable services, and non-transparent behaviours from corporate entities, including unchecked price increases.[366] Under current regulations, although health insurers are prohibited from offering health-care services, hospitals can launch insurance companies and build integrated care systems without safeguards against risk selection. The Commission proposes that an enabling legal framework that eliminates this anomaly between insurers and providers, prevents risk selection, and facilitates risk equalisation across the system, and will allow for more well regulated integrated care systems to emerge and address many of the challenges posed by the growing corporate hospital sector. Above all, we believe that the effective implementation of reform action 2 will itself act as a powerful incentive for the private sector to reform itself as it competes with a public sector that attracts a growing proportion of the population.

*3.2: reform voluntary insurance to reduce OOPE*

There is sufficient global evidence to suggest that voluntary insurance is not an equitable financing mechanism for UHC and can, at best, provide supplementary protection.[367] Additionally, indemnity-style insurance with a fixed compensation per service to the provider irrespective of the volume of services delivered, also creates overconsumption and oversupply of health-care services, leading to unchecked inflationary pressures.[368,369] That said, we must acknowledge that there are high levels of OOPE incurred by large segments of the Indian population across income levels, especially when seeking routine health-care services—most of which are not covered by any insurance. Furthermore, a large proportion of the population seeks care from the private sector (section 3) and realising reform action 2, moving towards a predominantly public sector-led health system, and enacting the regulations needed to bring about regulated competition will probably take time. In the interim, pooling and prepayment through voluntary insurance—offered by commercial companies or cooperative health-care organisations—could help their members finance health-care services from the private sector while preventing potentially unpredictable or catastrophic OOPE at the point of service.[370] Insurers can also assist their members in seeking the care they need, exert a measure of control over fraudulent behaviour by providers, and lay the groundwork towards regulated competition.

Despite its desirability as an interim solution for financial protection and the almost four-decade history of voluntary health insurance in India, by the end of 2023–24, at 312 million people, it covered only 21·5% of the 1·45 billion Indian population, the majority of whom are covered through their employer.[371] The current minimum capital requirement in India for insurers is INR 1 billion, which is over six times the requirement in Organisation for Economic Co-operation and Development countries,[372] considerably limiting the entry of new insurers and competition in the insurance sector. This restrictive policy could be an important driver of the

lack of growth in the number of individual lives covered. The Commission recommends that the government consider reducing these entry barriers along the lines proposed by the Insurance Regulatory and Development Authority of India, by lowering the limit to INR 200 million and formally licensing small insurers, but with a robust framework of reinsurance and associated risk-based capital allocation.[372] Given India's long history of community-based collectives and strong social capital, cooperative health care could also be a feasible voluntary insurance mechanism.[373,374] Many countries with similar fiscal constraints and large informal sectors, which make implementing mandatory social health insurance challenging, have successfully used cooperative health-care to reduce OOPE.[373,375,376] The Commission, therefore, also recommends the formal licensing of cooperatives as insurers.

The current indemnity coverage in voluntary insurance for hospitalisations is misaligned with UHC goals. It leads to low-value care and system-wide inefficiencies, including the possibility of high health-care cost inflation, which can have a negative effect on the entire health system and put India's quest for UHC out of reach.[377,378] This Commission emphasises that these financing alternatives must be accompanied by reforms in the organisation of service delivery through the adoption of integrated care principles (reform action 2.3) and effective regulations.[374,379] Guarding against the well documented problems of adverse selection, risk selection, and health-care cost inflation associated with voluntary health insurance is also important.[324,369,374] To address these risks, insurance products need to expand their benefits to cover comprehensive services through capitation-based payment models for providers. The key is ensuring that insurance beneficiaries see benefits for the premium they pay to buy voluntary health insurance, that they can easily make claims without the high risk of rejection, and that high-quality, cashless, comprehensive services from empanelled providers are available to them. Another way to reduce adverse selection is to offer group health insurance through employers, women's groups, or trade associations (instead of individuals or households). Due to affordability barriers, this alternative might apply only to areas with a sufficiently large population that are willing and able to pay for premiums or contexts with very high cohesion and social capital among members.[380]

The extensive resource of pharmacies serving as a first point of care for many people points to their potential role in supporting primary health care in the private sector. As successfully shown in several countries, pharmacists could be trained to identify common illnesses, refer patients for further assessment, engage in health education for the prevention and care of different conditions, discourage irrational drug use, and be involved in the care coordination of patients, especially those with conditions that need continuing care.[215,381,382] These expanded roles for pharmacists, under the supervision of clinicians, could be initiated as a starting point for evaluating their effectiveness as non-physician primary care providers. The advantage of this approach is that it leverages existing providers who are embedded in and trusted by their communities.

### Reform action 4: invest in and scale-up diverse technologies to catalyse UHC

In the post-pandemic era, there is growing recognition that the convergence of exponential advances in biotechnology, AI, and digital public infrastructure offers a historic opportunity to realise the ambitious goals of the Commission, which rely almost entirely on domestically developed resources.

#### *4.1: deploy and scale up technologies to catalyse the reforms needed to realise UHC*

The deployment of digital tools and technologies can catalyse many of the reforms proposed by the Commission.[220] Digital platforms will be crucial to facilitate the integration of a diverse range of registered health-care providers (including primary care providers, pharmacies, diagnostic facilities, and hospitals) with multiple types of payers and patients, facilitating health data exchange, structured care coordination, and communication among them. The government could set requirements for providers to be eligible to register and receive payments, such as fulfilling IPHS standards along with workload-based staffing criteria and committing to data sharing for accountability and quality assurance. The platform could serve a range of functions, such as pooling funds and making provider payments, supporting primary care providers to serve their populations and connect them to higher levels of care, and supporting self-care through patient-facing tools, including health education applications. Beyond facilitating the other health-care delivery reforms, such digital platforms could, in effect, construct a much more loosely coupled version of the IDS. Here, the primary care provider is clearly identified for each user, but, unlike in the IDS, this provider is not tied to a network of secondary and tertiary hospitals for referrals. In the case of the voluntary health insurance option, the commercial or cooperative insurer could pay their empanelled providers registered on the integration platform based on its own criteria. Citizens would choose their primary care provider on the digital platform informed by the data made available on the range of options accessible to the person, with an option to change at predefined intervals to give some continuity and stability for planning and payments to the chosen provider. Incorporating gatekeeping principles, patients would first see their primary care provider (except in emergencies), who would be responsible for their health and wellbeing through comprehensive primary care services under the platform contract. The primary care provider would request all referrals, diagnostic tests, and prescriptions on the digital platform (figure 21). The platform would assess

and manage these requests for the registered patients, recommending appropriate specialists or hospitals, diagnostic labs, and pharmacies based on patient needs and location. To ensure seamless access to health care for India's migrant population, the platform would facilitate the transfer of their primary care provider registration to their current place of residence for the duration of their work or visit and stay in that location. The government's ABDM and AB-PMJAY, the Swasth Alliance, private sector aggregators (eg, Medibuddy and Practo), and third-party administrators (eg, MediAssist and Vidal Health) already play many of these roles. Federated health data exchanges could also be harnessed to enable interoperability across providers and payers. It is important that these public and private sector aggregators work seamlessly without monopolising patient data. Lessons from the Taiwanese model as an effective government-owned digital integration platform in a mixed health system could be valuable for India.[383,384]

The benefit of this reform option is that it requires minimal changes from current arrangements in health system levers such as financing, organisation of delivery, and provider payments for higher-level care, although it could gradually evolve towards our preferred reform

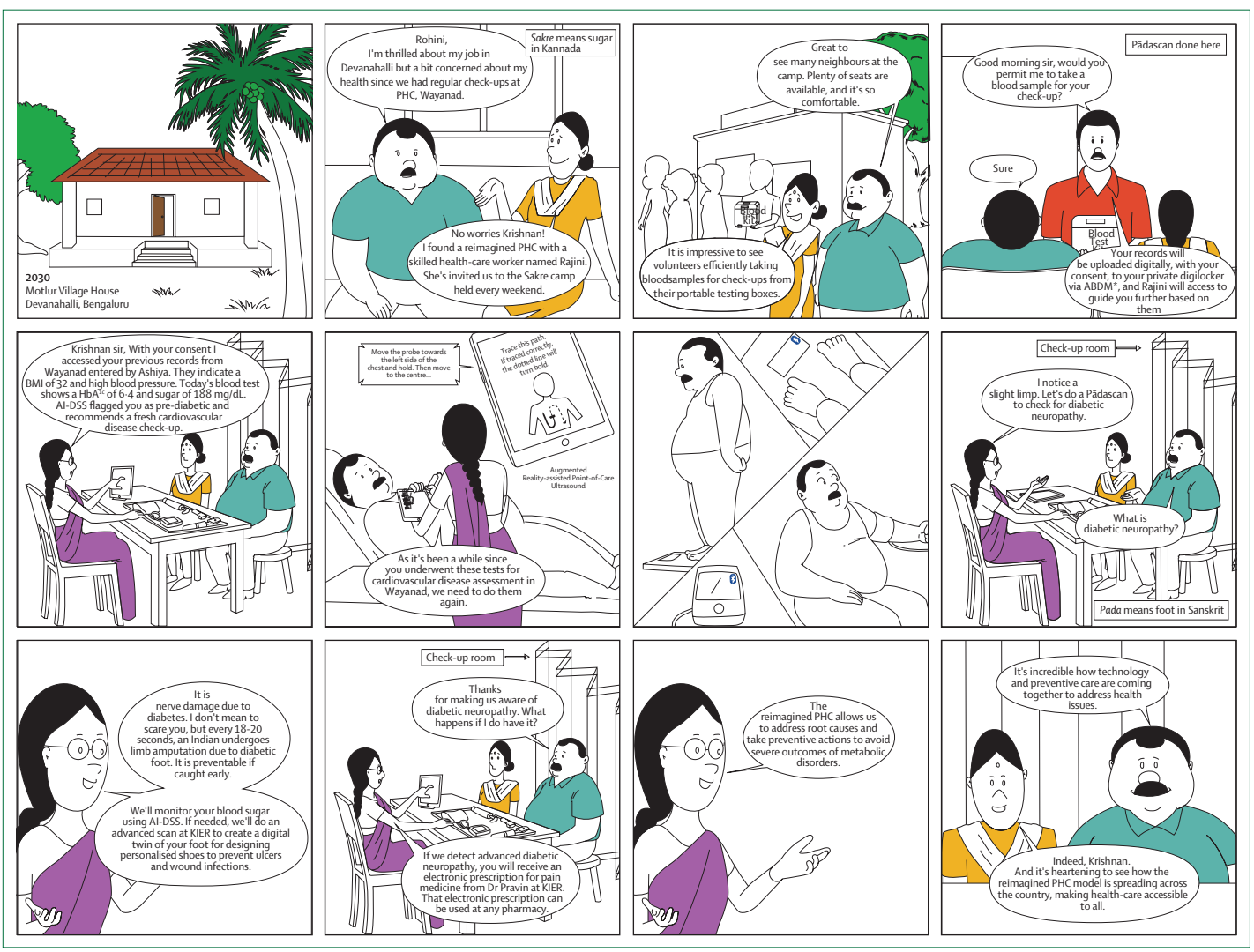


***Figure 21:*** **A patient's journey in a reimagined primary health care-focused system**

This cartoon is the third in a series of three cartoons created as part of the Commission's deliberations to show how different kinds of technologies might provide a more citizen-centred approach to health care. It is based on an experiment in progress with a team of interdisciplinary stakeholders to build a replicable and reimagined primary health centre in a rural village in north Bengaluru, India. Each cartoon in the series reflects a different condition or disease and different actors. These cartoons are not designed to be an ideal or a recommendation; they are prototypes that aim to elicit more concrete and useful reflections and reactions that can envision what a patient's journey might look like in the future. The cartoons are suggestive of the potential of certain types of innovation. Some of these innovations are already available, some can be developed relatively easily, and others are more complex. The target audience for these cartoons is the same as that for the report—stakeholders and decision makers in the health system who are mostly English readers. However, if it is useful, these resources can be translated into multiple languages. The first two cartoons are available at https://www.artpark.in/reimagine-health. PHC=primary health centre. ABDM=Ayushman Bharat Digital Mission. $HbA_{1c}$=glycated haemoglobin. AI-DSS=artificial intelligence decision-support system. KIER=Karnataka Institute for Endocrinology Research. *ABDM provides key digital public infrastructure for India's health systems.

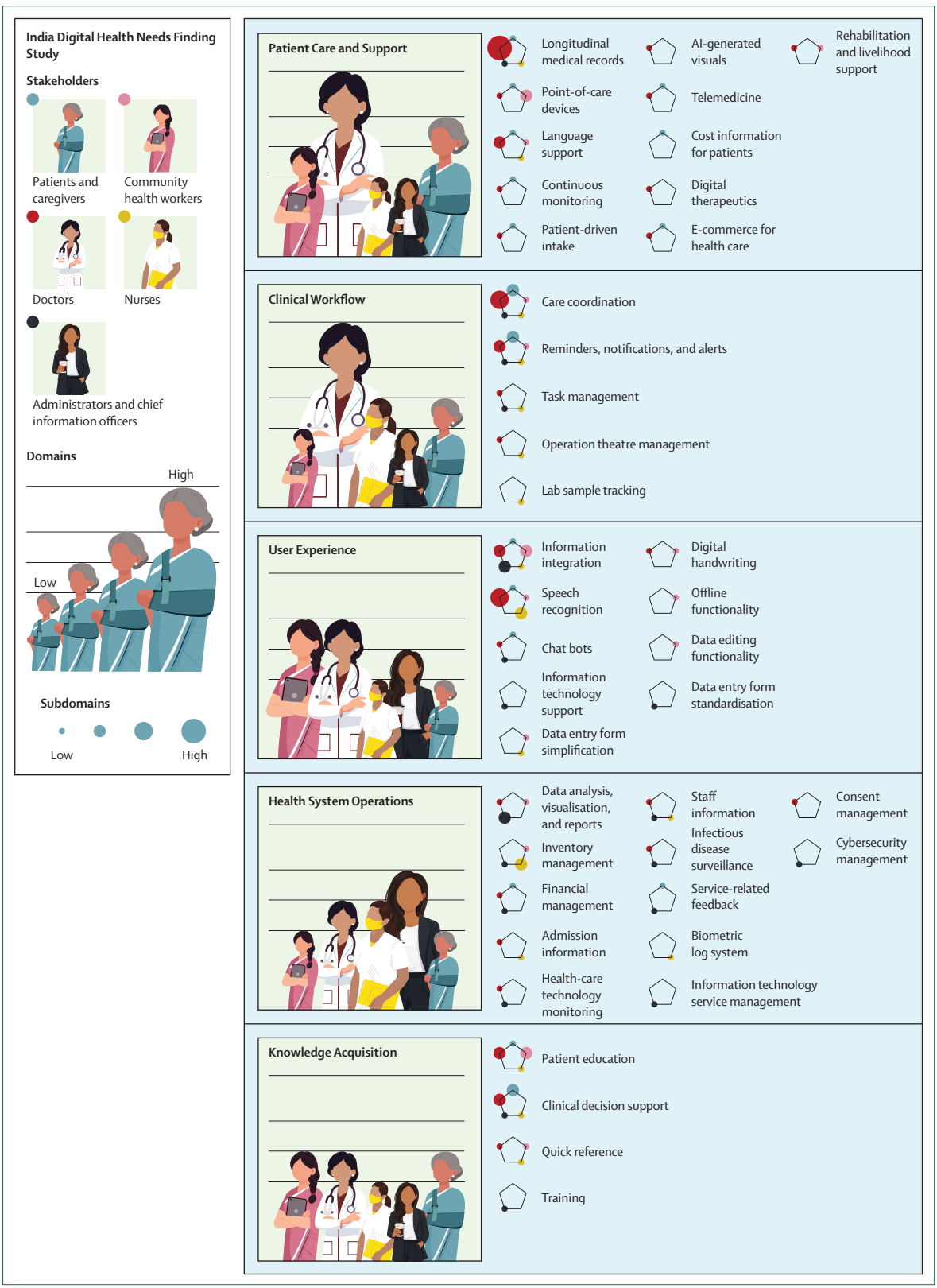


***Figure 22:*** **Stakeholder priorities from the India Digital Health Needs Finding study**

In 2023, the St John's Research Institute and the Lakshmi Mittal and Family South Asia Institute at Harvard University's India Digital Health Network, in collaboration with the National Health Authority, conducted an in-depth, nationwide analysis of digital health needs. Using generative design research, 156 stakeholders were interviewed over 208 hours, and the data were analysed inductively. Identified needs were grouped into domains and compared across stakeholder types in a framework analysis. Results are presented here by stakeholder type in decreasing order from top to bottom and left to right.

action 2. It also allows the health system to aggregate India's millions of providers that currently offer the bulk of acute and episodic care, medicines, and diagnostics with little quality control and regulation. Ultimately, the Commission recommends a move to capitated payments for comprehensive health care to be aligned with UHC. With gatekeeping and referrals regulated by the digital platform, most care is expected to be provided by primary care providers, thus further strengthening these services and improving health system efficiency and care quality, even with only loose coupling of primary and higher levels of care. To be feasible, the platform will require a change in behaviours of primary care providers so that they follow the principles listed earlier for primary health care and payers willing to offer comprehensive insurance and move away from fee-for-service payments to align with the altered role of the primary care provider. Individual users would benefit from having a custodian for their wellbeing (in the form of the primary care provider), coordinated care, and protection from unexpected OOPE at the point of service for their outpatient needs.

### *4.2: health technologies must be equitable and address the priorities and privacy of users*

To realise the full potential of technologies to transform health care, attention to questions regarding user priorities, equity, and privacy will be needed. The India Digital Health Needs Finding Study (2024; figure 22) observed that priorities varied among different stakeholders of the health system. In decreasing order of priority, the key domains of need were patient care and support, clinical workflow, user experience, health system operations, and knowledge acquisition. Although administrators, who are often the key decision makers around investments in digital health tools (especially electronic medical records), were particularly concerned about operations, clinical care was the most highly prioritised domain by clinical providers and patients. A longitudinal medical record was a high priority for physicians, and point-of-care devices were a priority for community health workers. Both physicians and community health workers advocated for better user interfaces, prioritising integration across systems and speech recognition. Administrators prioritised inventory management, performance reports, financial management, and admission and billing procedures, whereas these subdomains were low on the wishlist of clinicians, community health workers, patients, and their families. These differences are important to recognise so that different stakeholder needs are prioritised while investing in and designing digital health tools (figure 22).

Digital tools could also be deployed to train and support primary care providers and facilitate high-quality care through technology-enabled care coordination, diagnostics, and clinical decision-support systems (figure 17).[259] Without sustained investments in digital skills, the transformative potential of these tools will plateau, deepening rather than bridging inequities. Incentive alignment is equally crucial: adoption and sustained use must be linked to reimbursement mechanisms, accreditation standards, and career progression pathways so that providers are motivated to integrate digital tools into routine practice. Designing these tools to eliminate the burden of manual record keeping and paperwork is of equal importance, enabling providers to spend most of their time on service delivery. The widespread adoption of digital tools will require attention to the digital literacy of frontline workers, access to smartphones and the internet, and building the requisite infrastructure, especially in remote locations. At close to INR 800 billion (US$10 billion), the large Universal Service Obligation Fund of the government of India has been created for this explicit purpose and must be used to offer universal optic fibre connectivity urgently.[385] Additionally, many government health and welfare programmes require citizens—often repeatedly—to furnish multiple documents, even when the same documents are needed across schemes. This creates unnecessary burdens of time and cost, especially for lower-income households and other vulnerable groups. Enabling integration with platforms such as DigiLocker—a secure digital platform launched by the government that allows citizens to store, access, and share official documents and certificates online, eliminating the need for physical copies—could streamline documentation and improve access across multiple entitlements. However, we recognise that there are inequities in access to and use of digital technologies across population groups (discussed in section 4). These need to be considered when designing digital platforms, and there needs to be concerted efforts by governments and civil society towards digital literacy.

For more on **DigiLocker** see https://www.digilocker.gov.in/

Globally, regulatory frameworks for digital health have been unable to keep pace with the innovations, and India is no exception. India's Personal Data Protection Act (2023; section 4) has been an important step, although the widespread use of digital technologies and AI will continue to raise ongoing concerns about the monetisation, privacy, and security of sensitive patient data. Ensuring robust data protection measures and transparent data governance policies is essential to prevent data breaches and unauthorised access (reform action 5.2). Global best practices offer valuable lessons for India in balancing innovation with privacy. The EU's General Data Protection Regulation and the proposed European Health Data Space show how robust privacy safeguards can coexist with the use of health data for research, innovation, and crossborder care.[386,387] India could adopt regulatory sandboxes for AI and health technologies, as pioneered in Singapore,[388] to allow innovators to test new tools under controlled conditions that protect patient safety while enabling learning and evidence generation. Expanding the scope of HTAIn and HeFTA to test and validate digital health interventions and AI-powered algorithms is urgently

needed given the rapid pace of growth in the sector with limited regulation and oversight. Although India's innovations in digital public infrastructure have been commendable, the country needs to invest more in interoperable and user-friendly digital health systems that not only collect and store data but also generate real-time, operationally relevant insights. When data-driven decision making becomes the norm, it will enable the health system to respond promptly to emerging needs, adapt to new challenges, and track progress with precision. The role of technologies to strengthen health system governance is further elaborated in reform action 5.

*4.3: invest in innovative technologies for prevention, diagnosis, and citizen-centred care*

The diagnostics, therapeutics, and medical technologies sectors have been the focus of investments in state-run and private research labs and incubators around the country. The pandemic showed how the fruits of these technologies, such as vaccines and diagnostics, were crucial to slowing the spread of COVID-19 and mitigating mortality. The rapid and widespread deployment of these technologies throughout the health system facilitates for a seemingly vast range of affordable, accessible, and inclusive technologies that can drive the health system towards point-of-need delivery of advanced diagnostics, preventive care, and citizen-centred care. The dramatic expansion in scientific capacity and the exponential reduction of technology costs in computation and genome sequencing have created multiple centres of excellence across the country.[389] Some examples of the development of sophisticated technologies that have direct implications for UHC include image-based applications such as optical spectroscopy for detection of sickle cell trait and disease;[390] the Genome India Project for advanced diagnostics for precision medicine tailored to the Indian population;[391] epigenetics for early cancer detection;[392] nucleic acid testing at point-of-care for addressing AMR;[393] affordable, domestically developed chimeric antigen receptor T-cell therapy for patients with cancer;[394] and gene therapies using lentivirus for haemophilia A.[395] Given the high burden of rare diseases affecting approximately 70 million citizens (with around 80% being genetic diseases),[396] as well as the increasing burden of cancer in the country, the Prime Minister's Science, Technology, and Innovation Advisory Council has entrusted the Indian Council of Medical Research and the Department of Biotechnology to prepare a plan for a national mission on cell and gene therapies. Building on India's growing gene therapy capabilities, we endorse the proposal for a rare disease platform for the Global South that integrates clinical, genomic, and biosample data with AI-powered analytics to accelerate equitable, cost-effective development of novel therapies.[397]

For more on **Mission Karmayogi** see https://igotkarmayogi.gov.in

At the same time, India's leadership in capital-efficient and community-level innovations must be recognised and supported (figure 21). Low-cost but transformative tools—such as smartphone-based diagnostics, portable ultrasound, and AI-enabled diagnostics—show how technology can extend access in primary care and rural settings. Similarly, applied innovations such as tele-intensive care units in rural India, drone delivery of vaccines and medicines, and locally manufactured biosensors illustrate how field-ready technologies can overcome geographical and systemic barriers to care. Public health applications, including wastewater surveillance, AI-enabled epidemiology, and digital twins for population health, further highlight how innovation can strengthen disease monitoring and prevention at scale. To unlock their full potential, regulatory bodies such as the Indian Council of Medical Research, CDSCO, and HTA-In will need to establish clear and expedited pathways for evaluating and approving affordable, homegrown technologies, ensuring that innovations designed for Indian conditions can be rapidly tested, deployed, and scaled in ways that advance equity and citizen-centred care. Establishing a HealthTech Innovation Fund as a public–private venture could provide risk capital and pathways for scaling homegrown tools beyond the pilot stage, ensuring that promising frugal and digital innovations translate into system-wide impact.

### Reform action 5: enable transparent and accountable governance of the entire health system

*5.1: decentralise health system governance and strengthen institutional capacities to realise its full potential*

We underscore that our aforementioned reforms would need to be adapted to local contexts, making decentralised decision making critically important. Empowering State, district, and local government institutions, along with enhancing their financial and management autonomy, requires clarifying roles and responsibilities at different governance levels, especially between the Central government and States in institutions such as the MoHFW, DoHs, NHA, SHAs, and regulatory bodies (section 4; reform action 2.2). Establishing clear frameworks and guidelines will ensure that local health authorities understand their duties and have the authority to act effectively. This includes training local health officials to enhance their managerial and technical skills, enabling them to make informed decisions and manage resources efficiently. These efforts should include structured leadership development, with integration of health sector-specific content into the government of India's Mission Karmayogi—a national programme to build a future-ready civil service through continuous capacity-building, competency development, and digital learning across all levels of government. Our recommendation of moving from line-item to global budgets is intended for financial autonomy for institutions for meaningful decentralisation. Improving the efficiency of fund flows by implementing a streamlined system for the digital transfer of funds

directly to State and district levels can reduce delays. Additionally, simplifying financial procedures and reducing bureaucratic hurdles will enhance the efficiency of fund use. The enhancement of autonomy and empowerment needs to be accompanied by changes in reporting, monitoring, and evaluation criteria from the current accounting for inputs to holding institutions accountable for improvements in health system outcomes. Investing in infrastructure, digital technologies, and human resources is vital to strengthen institutional capacities through targeted recruitment and training programmes for civil servants and health administrators at all levels (reform action 5.2). The National Institution for Transforming India (NITI Aayog) and the existing State Health Systems Resource Centres, supported by the National Health Systems Resource Centre, already provide the institutional framework for developing such decentralised capacities.

*5.2: strengthen data systems and consolidate technology-enabled, data-driven governance*

Ensuring the availability of high-quality triangulated data on district-level disease burden estimates, providers, infrastructure, health service utilisation and outcomes and expenditure patterns would enable a shift towards designing local reforms and promoting outcome-based accountability. The participation of both public and private sectors is indispensable for data-driven planning, governance, and accountability of the health system.[36] Thus, aligned with reform action 4.1, we recommend that participation in disease surveillance and registration in the provider and facility registries of the ABDM should be made mandatory for all providers in both sectors. ABDM's unique identification numbers for all citizens and interoperable electronic health records are central to coordinated care provision. Similarly, information about how many providers function in a catchment, their competencies, patient volumes, clinical profiles, treatments delivered, and outcomes is crucial for designing health services best suited to local realities, planning resource allocation, and implementing value-based purchasing across public and private sector reforms. District-level, block-level, and local-level governments would need to be supported by these relevant data, including regularly updating the Commission's UHC district index,[13] creating opportunities for sharing successful strategies in well performing districts. To empower local governments with actionable intelligence, we further recommend building decision-support dashboards at the district and block levels, linked to ABDM and SHA data, enabling managers to track performance, identify gaps, and design reforms more effectively. Additionally, digital technology could be deployed to enhance bureaucratic and administrative capacities for health system governance and accelerate the efforts of the Mission Karmayogi. As discussed previously, privacy and data protection must be at the forefront of these reforms to ensure that the expanded use of technology and data respects individuals' rights while driving improvements in health system governance. Patients must have control over their health data and understand the implications of AI-driven diagnostics and treatments, with informed consent being a cornerstone of data usage. The Digital Personal Data Protection Act (2023), the draft Digital Information Security in Healthcare Act, and the National Data Governance Framework Policy aim to establish clear laws and standards to manage and use data effectively while ensuring privacy, security, and ethical and equitable access.

Strengthening public health surveillance for monitoring population health status and health emergency preparedness, as well as planning and evaluating response, requires a national agency as the focal point of authority that can steward both the public and private sectors. This agency must converge and streamline the work of multiple governmental agencies currently involved in managing siloed, disease-specific databases. A strengthened National Centre for Disease Control is well positioned for this role. It should be accorded an autonomous status as a professional agency, with an extensive network of laboratories and the capability to coordinate its work with other departments, such as the Departments of Health Research and Biotechnology and academic institutions. Mandatory roles and partnerships for the private sector in disease surveillance, pandemic preparedness, and emergency response must be specified. The introduction of simple reporting methods such as through mobile phones, standardised case definitions, and regular feedback to providers on cases reported have been shown to improve reporting rates and disease detection among providers.[398] Furthermore, the NITI Aayog's Public Health Surveillance Plan 2035,[399] which provides a blueprint for comprehensive public health surveillance across disease categories, including currently under-represented non-communicable diseases and risk factors, enabled through digital systems, must be actioned. New technological developments, including real-time analytics using AI to identify emerging disease clusters and genomic waste-water surveillance successfully used during COVID-19, and CRISPR-based platforms, could be adapted for other pathogens and AMR.[393,400] These are also essential steps in the realisation of India's ambitious One Health Mission.

*5.3: reform provider education and enforce regulations to assure ethical and competent care*

Reforms to the curriculum and education standards for providers are crucial for improving clinical competence and care quality.[219,401] We recommend regular curriculum updates to keep pace with advances in medicine and public health, an emphasis on primary health-care and community-based practicums, performance assessments using tools such as clinical vignettes, mandatory

in-service training, and periodic re-certification of providers. The NMC's comprehensive review of the medical education curriculum can be used to inform the first phase of these updates. Establishing a national digital continuing medical education platform, integrated with ABDM's provider registries to deliver modular training, could enable re-certification and track provider competencies. Foundational training in traditional medicine systems included in the MBBS curricula could facilitate integrated care delivery, especially for chronic conditions.[401] Specifically for medical education, NEET needs to reform its selection criteria to make them more equitable for students from disadvantaged backgrounds. The NEET curriculum should be reformed to emphasise critical thinking, problem-solving, and practical skills in addition to theoretical knowledge. Importantly, the National Testing Agency needs to play a standard-setting role, with inbuilt systems of transparency and accountability in its functioning.

Under the NMC Act (2019), the NMC replaced the Medical Council of India, shifting to a more transparent and accountable system for regulating medical education. However, continuous reforms are needed in the NMC to address implementation challenges to its vision on a range of concerns regarding the accountability of physicians, such as conflicts of interest and corruption in the education of providers and health-care delivery.[53,402] The NMC operates through four boards—the Undergraduate Medical Education Board, the Postgraduate Medical Education Board, the Medical Assessment and Rating Board, and the Ethics and Medical Registration Board—each with clearly defined functions. Although board members are appointed by the government, they have functional autonomy to enable independent decision making. However, this structure still makes the NMC vulnerable to political pressures and regulatory capture. We recommend restructuring the NMC to ensure greater autonomy and transparency. This could involve creating an independent accreditation board with members appointed based on merit and professional expertise with clear guidelines and accountability mechanisms. Additionally, the State medical councils, empowered under the NMC Act to take disciplinary actions against doctors for professional or ethical misconduct, must have strengthened capacity and authority to exercise their powers more effectively and affix accountability.

Implementing the CEA is crucial for regulating standards of care across public and private sectors. The autonomous public sector purchasing institution could require all States to enforce the CEA, while voluntary health insurance and digital platforms could incentivise providers to register under CEA for empanelment. The National Council for Clinical Establishments should set clear minimum standards and maintain a comprehensive database by leveraging the provider registries in ABDM. State councils should establish District Registering Authorities chaired by officials focused solely on this role to avoid burdening district collectors. District medical officers, currently tasked with enforcing the CEA alongside many other duties, should be supported by dedicated supervisory staff to ensure compliance. Importantly, CEA regulators should be independent from the public health sector to address conflicts of interest.

### *5.4: regulate the quality of drugs and address irrational prescriptions*

We recommend urgent reforms to address the uneven quality of allopathic and AYUSH medicines and their widespread irrational use. To ensure the quality of medicines, the CDSCO should be made autonomous. Improvements in human resources, personnel qualifications, and infrastructure will be needed to enhance the regulatory agency's powers and responsibilities. The CDSCO must make its systems interoperable to improve patient access and timely delivery of new therapeutics. The Drugs and Cosmetics Act (the legislation governing drugs, vaccines, and therapeutics) must be harmonised with global norms and practices. We recommend bringing drug regulation under the Constitution's Union List (instead of the Concurrent List), as the 15th Finance Commission recommended, to ensure uniform quality control across the country. This change is essential to eliminate regional disparities, ensure consistent drug safety and efficacy nationwide, and reduce the risks associated with varying State-level regulations.

The essential drug lists must be continuously updated to reflect diverse epidemiological patterns of disease burden and emerging evidence of cost-effectiveness (aligned with HTA-In and HeFTA recommendations). Regular prescription audits envisioned under the National Quality Assurance Scheme must be undertaken to identify irrational drug use. Jan Aushadhi outlets could serve as anchors for such digital audits, supporting rational use campaigns and providing feedback loops on prescribing patterns. To further strengthen accountability, a phased introduction of e-prescriptions—piloted in urban tertiary hospitals and scaled progressively to districts—would allow systematic monitoring of prescribing practices and irrational drug use. Furthermore, a mandate for digitising drug sales could monitor the misuse or overuse of medicines such as antibiotics and help mitigate AMR. Pooled procurement through autonomous agencies deployed by some States[64] should become the norm nationwide. A national e-procurement marketplace, drawing lessons from Tamil Nadu and Kerala medical services corporations, could expand pooled purchasing while ensuring price transparency and efficiency. These should be further strengthened with an integrated digital inventory management and tracking system at the decentralised level of every

health-care provider that allows automated processes for placing procurement orders to prevent stockouts and leakages and to audit prescription patterns.

As most medicines are sold by private pharmacies, they are an important stakeholder to engage. We acknowledge that challenges could arise for digitally tracking these pharmacies. Evidence from Laos, Viet Nam, and Thailand has shown positive results in improving pharmacy practice by increasing professional bodies' awareness about regulations and good prescribing practices.[263,403] The support of the Indian Pharmacists Association would be essential for similar efforts in India to promote better pharmacy practices.

### Reform action 6: promote a learning health system

The Commission recommends that the proposed reforms must be supported by a Learning Health System (LHS), which offers an opportunity to use real-world evidence to inform how the reforms can be designed and implemented in a manner that is acceptable to a diverse range of actors, and that is effective and affordable.

The ultimate goal of the LHS is to integrate science, informatics, incentives, and a culture of continuous learning and innovation, ensuring that the best practices are seamlessly embedded into routine care. An LHS recognises that health systems are not static but adaptive and responsive to changing needs.[404–406] This means building an ecosystem in which knowledge flows effortlessly between researchers, policy makers, health-care providers and payers, and citizens. Leaders must prioritise inclusivity and evidence-based decision making while championing transparency and accountability. Establishing multistakeholder governance structures is crucial; these structures should bring together voices from the public sector, private entities, and community groups.

Synergies are needed between the Department of Health Research under MoHFW and the Anusandhan National Research Foundation under the Department of Science & Technology, and there is scope for a joint institutional platform to steward and finance impactful transdisciplinary and intersectoral implementation of health systems and policy research. Institutions such as the NHA, NITI Aayog, and the National Health Systems Resource Centre, along with its network of State and regional health resource centres, could join such a platform to communicate research needs, share implementation lessons, and foster adoption of evidence in practice and policy. Such platforms could institute collaborative processes for the development, conduct, and analyses of major health surveys. By creating platforms for routine reflection and peer learning, the health system can shift away from a compliance-driven mindset and embrace a culture of collaboration and trust, in which both successes and failures are openly discussed to foster a spirit of continuous improvement. For an LHS to thrive, India must cultivate a culture that values teamwork, open dialogue, and reflective practice.

For an LHS to be truly responsive, organisations must be designed to promote decentralised decision making.[404] Empowering frontline health-care providers and mid-level managers with greater authority allows them to address local challenges swiftly and innovate based on ground-level insights. This decentralisation will require investment in sustainable research infrastructure and capacity building, ensuring that decision makers have access to actionable data. Creating inclusive forums in which diverse voices can deliberate—without being overshadowed by powerful interest groups—will further enhance the system's agility, credibility, and responsiveness. Dedicated funds must be allocated to support research teams, performance reviews, and knowledge-sharing platforms that bridge the gap between policy and practice. Incentives for academic and clinical researchers to engage in policy-relevant studies are equally important, thereby strengthening the connection between evidence generation and system improvements. Robust collaborative networks involving diverse local stakeholders as well as international experts are indispensable for creating a culture of shared learning and innovation. Strengthening networks for cross-State learning will facilitate the exchange of ideas and build consensus around evidence-based reforms.

Showing the tangible benefits of an LHS through improved health outcomes will gradually shift political and public norms, creating an environment that supports long-term change. Integrating LHS principles into the training curricula of medical and public health institutions will help nurture a workforce that is capable of driving systemic reforms. Emphasising the development of respected and skilled managers at every level will ensure that the values of continuous learning and innovation permeate the entire health system. A fundamental shift in the ecosystem of research is needed to value diverse knowledge systems, including operational and experiential insights from the field, knowledge sharing, and critical reflection, to ensure that lessons learned are continuously integrated into practice.

## The way forward: a political and transformational agenda

India's successive governments have made substantial commitments towards the goal of UHC, reflected in flagship policies including the NHM, Ayushman Bharat, and the ABDM. Yet, these policies have often fallen short of achieving their full potential primarily because they were frequently designed and implemented in silos, constrained by overlapping institutional mandates, and by weak governance and disjointed lines of accountability. Stakeholders widely agree that this complex, multiactor architecture—spanning disparate ministries, agencies, and schemes—has led to inequities, inefficiencies, and

uneven quality of care. Advancing UHC will require a coherent and comprehensive systems approach with organisational reforms in care delivery, sustainable and coordinated financing, unified governance across both public and private sectors, and meaningful citizen participation.

This Commission's core vision is to design a citizen-centred health system that prioritises people's participation and coordination across care levels with gatekeeping by a high-quality, outreach-focused primary health care-oriented system. Health systems everywhere are complex and reforming them to achieve national UHC goals is a challenging task, with different countries having a varying mix of public and private sectors. This Commission recognises that a sole reliance on the public sector raises concerns such as uncertainty over adequate financing, challenges in operationalising the purchaser–provider split, and limits in access to specialised expertise. At the same time, engaging India's large private sector presents its own challenges: the state's capacity to steward or effectively contract with the private sector is often weaker than its ability to deliver health-care services, and these gaps can exacerbate inequities and contribute to inflation. Thus, this Commission acknowledges that, after a careful examination of all the available evidence, we have been unable to find a single, perfect, risk-free pathway towards UHC for India that addresses all the major issues of fiscal and state capacities and political economy. That said, based on the totality of the evidence synthesised in this Commission, we recommend that India's path to UHC lies in strengthening the public sector health system while simultaneously aligning private sector participation with national health goals. The public sector must remain the backbone of equitable access, particularly for socioeconomically vulnerable citizens, while the private sector—already a major provider of outpatient, hospital, diagnostic, and pharmaceutical services—plays a vital complementary role. Implementing such a mixed delivery system with divergent incentives while retaining a coherent commitment to UHC requires enhancing state capacity to steward, regulate, and shape private participation so that India's mixed health system functions in a coordinated, accountable, and citizen-centred manner.

The proposed reforms are not intended to be a set of prescriptions suggesting India's only way forward. Instead, we consider them a set of evidence-based strategies recognising that the States of India are at different stages of health system development, representing unique contexts, capacities, opportunities, and challenges. The divergent approaches to policy and implementation taken by States in the past have offered a rich set of shared learnings across the Indian health system, many of which have been scaled-up across the country and informed our recommendations. Consequently, the specific form that these proposed reforms will take, and the pace at which they will be implemented, are expected to vary across States (table).

This Commission recognises that health system reforms are not merely technical—they are deeply political. The success of the reform options will require strong leadership and the alignment of diverse interests. Our first step is to identify key stakeholders—bureaucracy, health-care providers, civil society, and citizens—whose support or opposition will shape these reforms. Additionally, India's federal structure, multiparty dynamics, and the timing of political events play a crucial role. Although detailed political economy analyses would be needed at the Central and State levels for each option, we close this report with a preliminary consideration of potential facilitators and barriers to the reform actions. India's public sector health system has long been trapped in a low-demand, low-supply equilibrium, reinforced by path dependence and apathy among the upper and middle classes. Decades of poor service delivery have led wealthier groups to disengage, leaving the public sector to primarily serve the poor. This exit from the public sector has reduced political pressure to improve government health care, making reforms reliant on public sector providers vulnerable to indifference from influential groups. There is, therefore, a risk that our core proposal of strengthening the public sector while leveraging the private sector is met with indifference by political leaders and more affluent and powerful citizens. These factors could preclude the emergence of a broad coalition of citizens and civil society to energetically push the proposed reforms.

However, this Commission also believes that India might be at a critical juncture that could facilitate a departure from this historical trend. Three observations, with supporting evidence, form the basis of this argument. First, the COVID-19 pandemic has substantially reshaped public perceptions of governments, the role of the State, and public institutions in the post-pandemic years.[407–409] Studies have found that trust in the government has changed following the pandemic in several countries, and India stands out as a country where trust in public institutions improved in 2023 compared with 2018 and 2019. Notably, India had the highest trust in the government among the 21 nations surveyed in the Global Trustworthiness Monitor—a strong foundation on which to advance health reforms.[410] Similar crucial junctures or shocks that affect all sections of society, such as economic recessions, have been shown to increase the demand for, and acceptance of, redistributive reforms and act as an impetus for transformation.[411,412] Second, we are buoyed by the results of the Citizens' Survey (2023), which suggest that most respondents would prefer to seek care from a public sector provider. Although the stated preferences must be interpreted with caution, this sentiment is consistent with a desire to have high-quality public sector services. Indeed, when the public sector has excelled in India, such as with professionally managed

elite educational and research institutes, even the upper classes have responded positively. Third, India's central, multiparty, coalition government that was elected after the 2024 national elections might create more opportunities for the representation of diverse ideas for reforms.[317,413] Political changes have consistently created windows of opportunity for reform; for example, radical health initiatives such as the NRHM and Ayushman Bharat emerged following shifts in political leadership in the Central government.

Within India's multiparty system and federal structure, political dynamics between the Central and State governments are also an important consideration. The adoption of centrally sponsored schemes has often faced political contentions in States ruled by opposition parties. For example, opposition-governed States resisted adopting the AB-PMJAY, and launched their own State-level programmes, albeit with very similar designs.[66] States also vary immensely in terms of having to contend with coalition governments, changes in the ruling party with every election, or having established dominant parties; for example, Kerala and West Bengal have historically had leftist parties in power, whereas right-wing parties have mostly ruled States such as Gujarat and Uttar Pradesh.[414] Different welfare regimes across States also increase the possibility, choice, and range of reforms (as documented previously in this report).

Tensions among bureaucrats at different administrative levels will also play a crucial role. For example, a key proposal of this Commission is to separate the purchaser and provider roles of the MoHFW and State DoHs and introduce strategic purchasing principles. Such substantial reorganisation and changes to funding might generate resistance from the affected bureaucrats, arising out of concerns about a reduction in budgets they oversee and the introduction of more accountability mechanisms. Similarly, the proposal to expand ESIS and consolidate pools could provoke resistance from trade unions, business groups, providers, and entrenched administrative interests. Political groups in the opposition might leverage these grievances to stymie enabling legislation. Furthermore, policy changes towards increasing decentralisation might face resistance from Central-level administrators and institutions that have traditionally held more fiscal and decision-making authority. However, past experience has shown that determined political leadership can overcome such hurdles. For example, the creation of the NHA as a quasiautonomous purchaser of care is an example of a structural reform. The launch of the AB-PMJAY has been noted as an example of deft policy and political entrepreneurship.[415] Global experiences from countries such as Thailand and Uruguay illustrate how these politics can be navigated for successful reforms. In fact, Thailand's transformative health reforms and their resilience through political upheavals have been attributed to the committed and highly capable bureaucracy.[416]

Health-care providers, particularly physicians, are a key interest group who are often resistant to regulatory reforms that strengthen accountability or set new standards. For example, the CEA (2010) aimed to standardise provider regulations but was stalled due to opposition from provider lobbies, limiting its adoption at the State level. Similarly, initiatives such as the Rural Health Practitioners programme in Assam and Chhattisgarh were dismantled due to resistance from MBBS doctors.[281,417] However, strong political will and support from institutions such as the National Health Systems Resource Centre have helped overcome such challenges leading to the integration of non-MBBS (mostly AYUSH) community health officers into AAMs, despite initial pushbacks from physician associations. Providers from both public and private sectors generally tend to support financing reforms that expand health-care budgets as these increase the overall resource base. This is also evidenced by recent calls from the Indian Medical Association for increased funding.[330] However, payment reforms—such as shifting from fee-for-service to capitation or global budgets—have faced resistance in many countries.[208,415,418] Additionally, reallocating resources towards primary health care might face opposition from hospitals and specialists, particularly when combined with gatekeeping and referral mechanisms.[419–421]

Civil society organisations, NGOs, and health sector experts have important roles in agenda-setting, policy design, and coalition building by leveraging their extensive community networks and technical expertise. For example, the ASHA programme is a prominent case in which non-state actors have been instrumental in transforming health policy.[68] In many countries, governments have collaborated with these groups to overcome resistance from physician associations and enhance public acceptance of reforms. Their involvement not only broadens the base of support but also ensures that policies are more responsive to local needs and grounded in practical experience. This collaborative approach can help bridge gaps between the government and citizens, fostering a more inclusive and sustainable reform process.[419,420] Finally, citizens might not immediately embrace all aspects of reforms. For example, experience from other countries show that gatekeeping reforms often face initial resistance.[208,420,422] Decades of bypassing primary care for specialists often ingrains health-seeking behaviours that are difficult to change. However, successful examples from countries such as Thailand, Uruguay, and Kazakhstan show that shifts in care-seeking patterns are possible.[419] Citizens' responses to reforms are dynamic, shaped by historical, cultural, and sociopolitical contexts. Although trust and tangible benefits are central to the success of reforms, they are not enough on their own. Sustainable change requires addressing systemic inequities, providing reliable, high-quality care to all citizens, and adapting to local realities. Moreover, citizen engagement is not static—it evolves

with the broader political economy and prevailing political ideologies.

Many of our proposed reform actions have already been initiated by Central or State government policies, and their inclusion herein is an endorsement of these policies and an acknowledgment that the challenge lies in their effective implementation. However, some of our reform actions are potentially more transformative. Thus, we expect that some of our reforms might not be palatable or even feasible for specific jurisdictions at this moment in time. We recognise that vested interests, conflicting ideologies, political considerations, and governance and implementation capacities are considerable barriers to successful reforms. Thus, high-level political commitment is indispensable to the successful realisation of the goal of UHC. Moreover, major public policy decisions should be (even if often not so) the result of iterative processes of discourse with the relevant stakeholders[423] and through a continuing learning process resulting from pilots of innovative actions and the scaling-up of these actions. In the spirit of positioning this report as the final output of a Commission focused on citizen-centred care, our recommendations will require extensive consultations with civil society and health system actors across the country to assess their feasibility, acceptability, scalability, and risks, followed by iterative cycles of implementation and evaluation. With determined political leadership leveraging broad-based support from diverse stakeholders, India can transform its health system to better serve all its citizens, setting the stage for a sustainable and resilient future.

#### Contributors

The core writing team of VP, AK, KMF, NM, SBh, and TK conceptualised the structure of the Commission and led the drafting of content of the Commission. SA, HA, SBa, IB, VC, MC, SC, RD, AG, KM-S, GIM, AM, PM, AN, TN, BP, TR, SS, DS, SKS, SVS, LV, SV, and SZ contributed to the intellectual content, research, and the writing of specific sections, and all authors reviewed and approved the final version of the Commission.

#### Declaration of interests

VP is a cofounder of Sangath and serves on its managing committee. TK is the director of Axilor Ventures, which has occassional investments in health-care startups in India; and serves on the governing board of the Population Foundation of India and on the steering committee of the Lakshmi Mittal and Family South Asia Institute. NM declares roles as a visiting scientist for the Banyan Academy of Leadership in Mental Health (Chennai, India), as a visiting professor for the Indian School of Business (Mohali, India), and as an independent board member for Narayana Hrudayalaya, Navi, Dr Agarwal's Healthcare, and Sukoon Health. KM-S is the founder and chairperson of Biocon Group. AK is the director of the India Health Systems Reform initiative funded by the Gates Foundation at Harvard University and coleads a multicountry health systems project funded by WHO. TN is cofounder of Community Health Cell and the Society for Community Health Awareness; has engaged professionally with the Public Affairs Foundation and the Suniti Solomon Foundation; has been an advisor to the government of India and the governments of Karnataka and Odisha; and is associated with the People's Health Movement and the Jan Swasthya Abhiyan: the views/positions in this report are accepted in her personal capacity as part of collective authorship that acknowledges different points of view. SZ is a cofounding director of the Association for Socially Applicable Research (ASAR); represents ASAR within the Permanent Council Member of the G4 Alliance; serves as chair of the Asia Working Group, the G4 Alliance; and is a drafting committee member for Maharashtra State Mental Health Policy. MC is a senior leader of the Self-Employed Women's Association (SEWA); founder and director of SEWA's social protection team, including health care, child care, and insurance; founder of SEWA's health and insurance cooperatives; chairperson of the SEWA Cooperative Federation and Women in Informal Employment Globalising and Organising; a board member for the Lok Swasthya Cooperative, the National Insurance VimoSEWA Cooperative, the Indian Academy for Self-Employed Women, the VideoSEWA Cooperative, the Mahila SEWA Trust, the Schwab Foundation for Social Entrepreneurship, CICOPA (a federation of industrial and service cooperatives affilated to the International Cooperative Alliance), and the C N Vidyalaya School Board, all of which are in honorary capacity; and is the managing trustee of the Lok Swasthya SEWA Trust in an honorary capacity. PM is the executive director of Population Foundation of India, a non-profit organisation; and serves on the boards of ActionAid International, ActionAid India, the Study Committee on Population Dynamics and Women's Empowerment at the National Academies of Sciences, Engineering, and Medicine, the Commonwealth Human Rights Initiative, Dastkar, and the International Institute of Population Sciences, which are non-remunerative roles. IB is senior associate at Johns Hopkins University, senior regional advisor at BCG, senior advisor at the Asian Development Bank, World Bank, and New Development Bank, and President at i-LEAP; and is engaged with several academic, government, non-profit entities: Indian Institute of Health Management Research (board member), Indian Institute of Development Management (board member), Indian School for Public Policy (senior advisor), Vidhi Centre for Legal Policy (board member), Swasth Digital Health Foundation (board member), WISH Foundation (board member), One Health Trust (board member), Advanced Study Institute of Asia (board member), Pahle India Foundation (distinguished fellow), Love, Live, and Laugh Foundation (senior advisor), Artha Global (senior advisor), NatHealth Foundation (board member), the Nudge Institute (advisor), and Pure Earth International (advisor); and is an independent board member for Godrej Properties, Diageo India, Colgate Palmolive India, ITC Hotels, Balrampur Chini Mills, Apollo Healthco, and HDFC IFSC Securities, and has received compensation for his services from many of these organisations. LV is an independent unaffiliated researcher; and is a member of several subject-related Coalitions and Professional Associations such as CommonHealth, Trained Nurses Association of India, Society of Midwives India, Indian Public Health Association, and Christian Medical Association of India's Nurses League.

VC is the cofounder with founder shares of CrisprBits Private and Strand Life Sciences (both of these for-profit companies are engaged in developing advanced techniques using genomics in diagnostics and in cell and gene therapies); has founder shares of Yantri Labs; serves as an advisor to the AI & Robotics Technology Park (ARTPARK), the Indian Institute of Science and Accelequant; is a board member for Strand Life Sciences; declares roles as chief scientist for CRISPRBITS (unpaid), founder trustee for the International Institute for Art, Culture, and Democracy IIACD (unpaid; non-profit trust), founder director for the Open Platform for Orphan Diseases (unpaid; not-for-profit section 8 company), founder director for the Metastring Foundation, visiting professor at the National Centre for Biological Sciences, Tata Institute of Fundamental Research (Bengaluru, India), distinguished visiting professor at Plaksha University (Sahibzada Ajit Singh Nagar, India), and visiting scientist at the Centre for Brain Research (Bengaluru, India) and Harvard T H Chan School of Public Health (Boston, MA, USA); has investments in several startups, including Ati Motors, Prolegis, VNIR Technologies, Hanugen Therapeutics, and Mimyk; is a member of the board of directors for Lantern Pharma; and is a member and chair of the Subcommittee on Data Sharing and Integration of National One Health Mission in the Office of Principal Scientific Advisor, government of India. SKS is currently a specialist in health financing, monitoring & evaluation, and data analysis at the Health Systems Transformation Platform, New Delhi. DS is the founder, chairman, and one of the principal shareholders of Narayana Hrudayalaya. TR is a health-care investor with Lightrock India; has invested in and is a board member of Kauvery Hospitals, Medibuddy, BeatO, Navya, Bugworks, Bewell

Hospitals, and Sukoon Hospitals; and is a board observer at Even Healthcare. SV is a senior fellow at the Centre for Social and Economic Progress (New Delhi, India). SA is the director of the Indian Institute of Public Health Shillong; serves as a member of the Early Childhood Development Mission of the government of Meghalaya, the state-level medical expert committee, and the State-level advisory committee for food safety; is chair of the Institutional Ethics Committee of the North East Indira Gandhi Regional of Health Medical Sciences, and the Research Advisory Committee of the Nazareth Hospital (Meghalaya, India), which are advisory roles that are non-remunerative in nature. BP is a national research professor designated by the Central Council for Research in Ayurvedic Sciences, Ministry of Ayush, government of India, which is a non-remunerative position. RD is the CEO of Artpark and on the board of Intelehealth. All other authors declare no competing interests.

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