



Building Trusted Primary Healthcare

India landscape and strategy for scaling continuous, trusted, outcome-oriented, comprehensive primary healthcare (CPHC)

July 2026

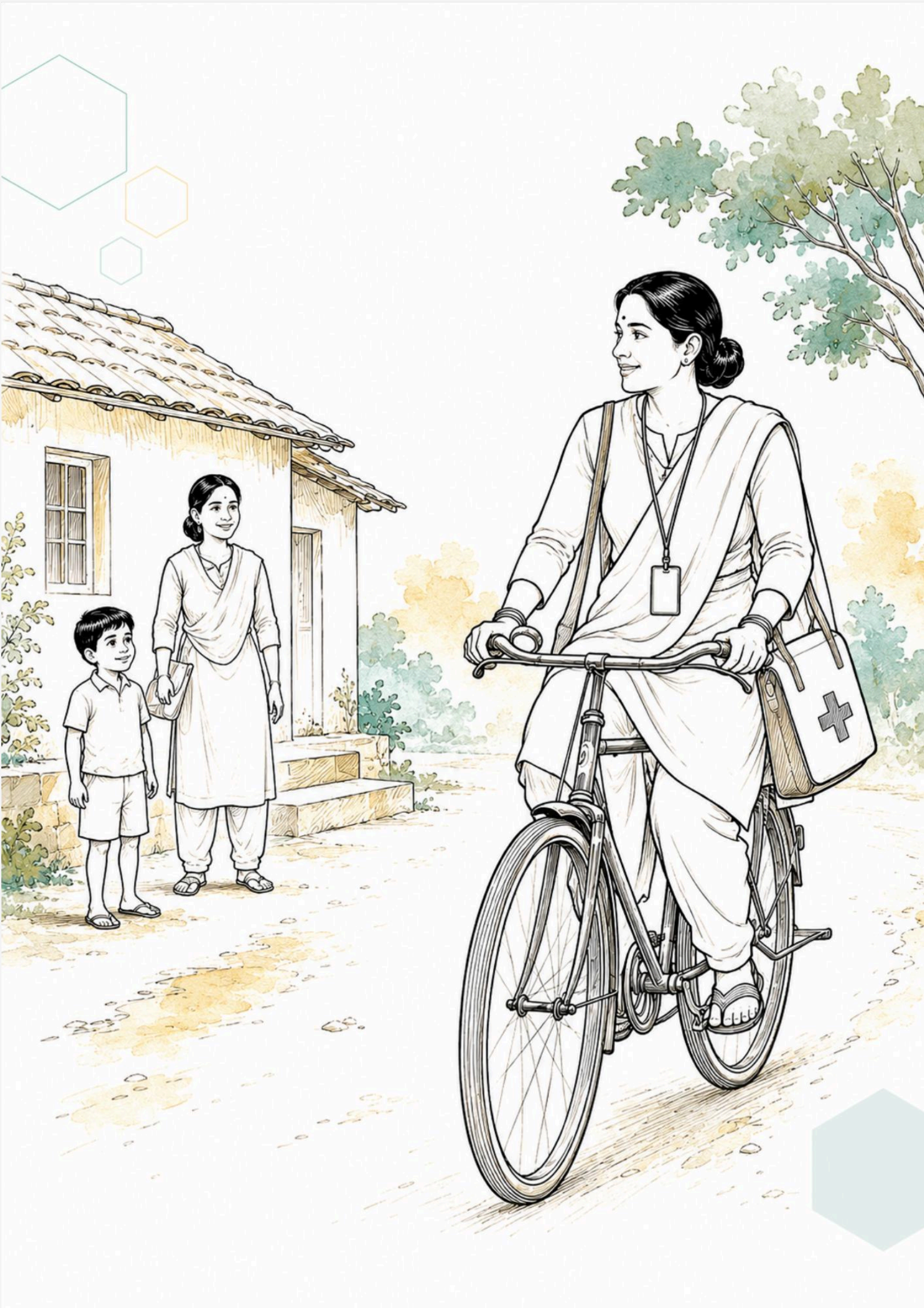
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Notes on language and terminology used

The language and terms around health systems are ever-evolving. However, for the document's flow, we have chosen to keep the language simple and consistent. We explain a few important terms here.

Comprehensive primary healthcare (CPHC):

A broader, people-centered approach that goes beyond basic healthcare delivery to address the social, behavioral, environmental, and economic determinants of health. In addition to preventive, promotive, curative, rehabilitative, and palliative care. CPHC emphasizes community participation, multi-sectoral collaboration, continuity of care, health system strengthening, and health equity across the life course. CPHC is characterized by its ability to deliver care that ensures reliable first-contact care and is continuous, comprehensive, and coordinated, often referred to as Starfield's "Four C's" within the context (referred to as the 5th C) of people's lives.

Value-based healthcare: Value-based healthcare is a framework that focuses on providing more health rather than more healthcare services. Value is defined as the ratio of outcomes that matter to patients and the total cost of providing such outcomes. VBC optimizes how we measure, deliver, and pay for care.

People-centered: The term "people-centered" goes beyond concepts of patient-centricity to include optimizing the health system by considering how all people (such as community members, doctors, nurses, other care providers, payers, etc.) interact with the system and each other.

A model: A model is a distinct, replicable approach to organizing, delivering, and paying for healthcare, including how it aligns the healthcare needs of people with incentives across providers, payers, patients, and funders. It is characterized by: delivery design (who, how, what, where, role of technology); financing mechanism (how care is paid for); measurement and feedback.

Deliberative dialogue: A structured research method where the research team and participants jointly examine a complex issue, not through passive interviews, but through active co-inquiry. The team frames issues, probes assumptions, shares evidence across conversations, and tests trade-offs in real time. This approach surfaces insights that no single interaction could, particularly where relevant knowledge is distributed across actors who rarely engage with each other.

Trust: Trust is the confidence experienced in a health system's ability to help people seek care, reach care, receive appropriate care, and remain connected to care over time. Trust is the relational foundation of primary healthcare. Trust should be understood not merely as a desirable social value/nicety, but as a form of health-system infrastructure that enables engagement, continuity, equity, stewardship, and improved health outcomes.

Continuity of care: The sustained engagement of an individual with the health system across time, providers, and care settings, not just repeated visits, but connected ones. It operates at three levels: relational continuity (an ongoing relationship with a trusted care team); informational continuity (where a person's information is securely but reliably available and accessible to care teams at all care nodes); and structural continuity (systems, referrals, and hand-offs that ensure no one falls through the gaps). In CPHC, continuity is what converts isolated encounters into longitudinal health outcomes.

Foreword: When an established idea becomes possible at scale

Some of India's greatest development breakthroughs did not begin with a new idea. They began when an idea whose value was already understood became possible at scale.

By the early 2000s, women's self-help groups had already demonstrated that poor rural women could gain financial inclusion, collective agency, and build livelihoods. Yet in Bihar, where poverty was deeper, access to finance was limited, and public institutions were relatively thin, the prospect of building strong women's collectives at statewide scale still seemed remote.

This started to change when several factors converged: accumulated experience from other states, stronger political commitment and long-term financing. Bihar seized the moment by building JEEViKA.

JEEViKA did not simply establish more self-help groups. It invested in a system: women organized into groups; groups connected through village organizations and cluster-level federations; community leaders supported by professional teams; and local institutions linked to banks, markets, technical expertise, public services, and the state. The programme began in selected geographies, learned and adapted, and progressively expanded across Bihar. By 2020, it had organized more than 12 million women into over one million self-help groups. This took sustained investment over decades for the community to take ownership.

Despite favourable conditions, scale did not happen automatically. Bihar made scale possible by investing in the systems through which a proven idea could work in practice.

Comprehensive primary healthcare is at a similar inflection point across states.

For decades, there has been broad agreement that India needs comprehensive primary healthcare (CPHC). Yet it remains an aspiration. Workforce models, siloed programmes, episodic delivery, weak financing and accountability, and fragmented information systems have made it challenging for states to translate the CPHC vision into reality.

That situation is beginning to change. India has invested substantially in infrastructure upgrades (Ayushman Arogya Mandirs), CPHC service packages, a new workforce cadre (CHOs), digital public infrastructure (ABDM, etc.), and expansion of health budgets. Advances in technology and artificial intelligence could make coordination, decision support, and proactive care more feasible and affordable. Administrative intent is increasingly aligned with the aspiration of CPHC.

These assets need to be assembled into a functioning system. Without deliberate redesign, they could reinforce a hospital-centric trajectory. But connected through the right institutional architecture, they create an opportunity to build trustworthy health systems. This report examines what that architecture requires and proposes a practical way for India to begin building it.

In solidarity,

Chintan Maru

CEO, Global Development Incubator, Americas Founder,
Leapfrog to Value

Why this report and why now?

Comprehensive primary healthcare has long been recognized as the right design for India. This report argues that it may now be possible at scale.

What this report adds

- **Trust is health-system infrastructure.** Trust shapes whether people seek care, remain engaged, and return for follow-up. It must be deliberately built through capable frontline teams and meaningful community participation.
- **Alignment of institutional interests is the key.** Delivery, financing, governance, technology, and community actors often operate according to different incentives and timelines. Scaling CPHC requires aligning them around responsibility for the health of a defined population.
- **Scaling requires an adoption architecture.** States need a practical process for adapting promising approaches to local realities, testing them under real operating conditions, generating credible evidence, and translating learning into practice.
- **AI should strengthen the human core of primary healthcare.** Used well, it can reduce administrative burden, support decisions and outreach, and free frontline teams to focus on relationships and problem-solving.

Why now

India stands at a convergence of infrastructure, digital capability, emerging innovation, and administrative intent. These conditions create a time-bound opportunity to build a more continuous, accountable, and preventive primary healthcare system—rather than reinforcing an episodic, hospital-centric trajectory.

What we propose

We propose a CPHC Design Lab that works with state governments to design, test, and adapt models under real-world conditions, generate evidence on adoption, financial viability, and responsible uses of AI, and translate what works into practical tools for scale.

The lab aims to help move CPHC from a widely accepted aspiration to an adoptable system.



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India's opportunity for health-for-all via comprehensive primary healthcare

India does not lack primary healthcare assets or innovations; the challenge is converting those assets into trusted, continuous, outcome-accountable care at scale ^{2,3,9,10,11,12}. Global evidence consistently demonstrates that strong comprehensive primary healthcare (CPHC) is associated with better population health, greater equity, more resilient health systems and more efficient use of health resources. When appropriately designed and resourced, CPHC can meet the large majority of people's health needs across the life course while reducing avoidable hospitalisation and downstream healthcare expenditure ^{1,2,3,4,5,6,7,8}. Comprehensive Primary Healthcare (CPHC) is an immediate necessity for delivering the "health for all" promise and addressing India's accelerating chronic disease burden transition^{2,3,9}.

The existing landscaping and innovation-mapping efforts often insufficiently engage with the **deeper institutional frictions and competing logics** that shape health system transformation ^{13,14,15}. Much of the discourse continues to privilege technological innovation, service delivery models, or financing mechanisms in isolation, without adequately examining how public health, market incentives, community agency, and state accountability intersect and conflict ^{2,3,15,16,17}. This landscaping and strategy report builds on prior efforts by more deeply studying the building blocks for resilient and equitable primary healthcare. **A central insight emerging from the deliberative dialogues is that fragmentation often reflects misalignment between institutions and actors pursuing different objectives across the healthcare ecosystem.** Viewed in this manner, the challenge of comprehensive primary healthcare goes beyond expanding services and access to creating alignment across diverse actors responsible for health over time.

One part of the problem is a **lack of effective framing** ^{14,15}. For fifty years, public health has struggled to give political leaders and administrators a **case for prevention that they can act on**. Future health outcomes can not compete well against more immediate needs. This is true for households deciding how to spend today and the states deciding where to put this year's budget. The HIV and polio responses were reasonably successful in getting political and administrative traction because they were framed as urgent, measurable problems with clear accountability. Primary healthcare prevention and health promotion have rarely been framed the same way. The framing of the problem also decides solutions. Anemia, for instance, is often seen as a clinical problem and treated clinically with supplements, while its root causes such as diet, gender, sanitation, and poverty are rarely addressed. Wellbeing is **social, cultural, behavioral, biological, and financial**. The Lancet Citizens' Commission on Reimagining India's Health System (2026) discusses these structural and political dimensions¹⁸. We have used the findings from the report to inform the analysis that follows.

India possesses the assets to deploy CPHC. New investments have heavily upgraded physical health infrastructure through PM-ABHIM and Ayushman Arogya Mandirs. Alongside policy alignments, the country also launched digital platforms like the Ayushman Bharat Digital Mission as public goods.^{9,10,11,12} Many states now have the potential to spend enough to achieve UHC⁵⁵. Additionally, state governments actively use comprehensive primary healthcare (CPHC) terminology in their primary healthcare efforts, creating an intersection of infrastructure readiness and administrative intent. The government has laid a strong foundation for CPHC through the National Health Systems Resource Centre (NHSRC) by designing expanded

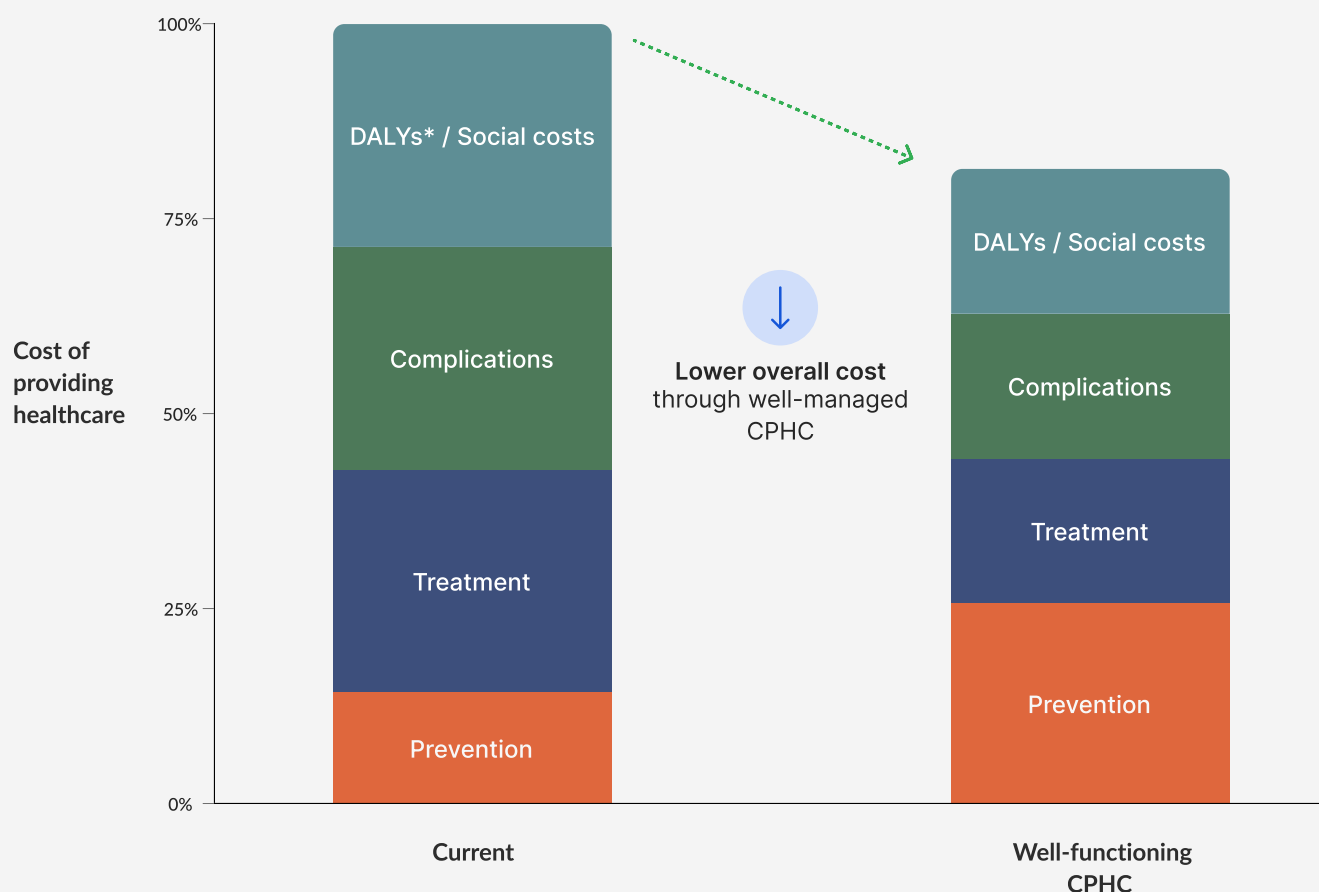


Figure 1: Illustrative diagram on how well-managed CPHC creates immense value in terms of outcomes and savings

service packages. While these packages have successfully boosted maternal and child healthcare, gaps remain for other pathways. Many local facilities still struggle to consistently deliver the full range of chronic illness management, mental healthcare, and emergency services on the ground. Also, the packages do not sufficiently address the integration, expected to be fundamental to CPHC ^{2,3,10,11}.

While India possesses a **rich ecosystem of primary healthcare innovations**, many remain fragmented, pilot-driven, geographically isolated, or operating at subscale level without sufficient integration into mainstream health systems, limiting their ability to influence systemic transformation or achieve population-level impact ^{19,20}.

Current primary healthcare delivery frequently stalls after initial access. Especially for NCDs,

people are often screened or diagnosed but are rarely followed, retained, or systematically supported across multi-year chronic disease timelines ^{21,22}.

Comprehensive primary healthcare is under-invested because often the full spectrum of value, i.e., value in terms of health, finance, social, and political, is not explicitly understood ^{23,24}. We talk about the value creation-value capture paradox in section 2.4 in more detail. It can generate immense value in terms of longitudinal outcomes, quality of life, prevention of late-stage complications and resultant cost savings, especially for ambulatory care-sensitive conditions (ACSC) ^{23,25}. Without cohesive delivery and financing models, all these **new investments risk locking into legacy trajectories of high-cost, episodic, and hospital-centric care** ^{23,24}.

*DALY: DALYs stand for Disability-Adjusted Life Years, a health metric representing Years of Life Lost (YLL) and Years Lived with Disability (YLD). One DALY equals one lost year of healthy life.

On the private sector side, primary healthcare is often provided by individual doctor-run clinics. While the private sector invests heavily in healthcare, most of those investments are in upstream high-ticket secondary and tertiary care²⁰. Primary healthcare is often seen as an unviable standalone business. So, private providers end up prioritizing transactional curative care and higher-ticket lead generation for tertiary care. While private insurance and managed care organizations increasingly recognize the value of keeping their policyholders healthy, they still don't see primary healthcare as a candidate for true risk pooling, requiring non-insurance financing models^{24,26,27}.

India has a **rare convergence** of infrastructure, digital public goods, and state intent around CPHC; but without the right delivery and financing models, these investments could harden into another hospital-centric trajectory.

The next few years offer a **time-bound window** to converge these raw assets into a trusted, continuous, outcome-focused primary healthcare ecosystem at scale. Transitioning to such a system depends on designing and demonstrating CPHC models that public machinery can realistically adopt, finance, and manage. Considering the plurality of context in India, the CPHC models must be context-specific and flexible. Similarly, the private sector needs viable comprehensive primary healthcare business models.

To build the future of CPHC systems in India, it is important that we

1. Start from **current realities and emerging innovations** (section 2)
2. Imagine an **ideal future state** that we need to build toward (section 3)
3. Set out how to **build it at scale** (section 4)



Today's primary healthcare landscape and innovations

01

Purpose

Understand the current landscapes of challenges opportunities and bright spots, under the eight themes of CPHC:

- Service Design
- Workforce
- Financing
- Governance and regulation
- Equity
- Community engagement
- Visibility
- Monitoring and evaluation

02

Purposive secondary review

Builds on previous work: [Global ROAD study](#), [Lancet commissions \(India healthcare, Financing primary healthcare\)](#), [Leapfrog to Value](#) and [Swasti's existing work](#).

Deliberative dialogues

- 22 Discussions with government, payers, providers including tech actor, philanthropies and experts over 6 months.
- Facilitators go beyond passive interviewing and participate in framing, bring perspectives from other interactions.

03

Themes emerged (sub-sections that follow)

- 2.1 Trust
- 2.2 Continuity
- 2.3 Outcome accountability
- 2.4 Financing and governance
- 2.5 Tech and AI

Figure 2: Overview of our landscaping process and themes that emerged

To deepen our knowledge about current realities and emerging innovations, we conducted **22 deliberative dialogues** on challenges, opportunities and bright spots across 8 areas of primary healthcare (see figure 2) with a well-rounded stakeholder group. This was complemented by a purposive literature review. **Five strong themes emerged from the dialogues.**

2.1 Trust

Trust has a dual role in primary healthcare. On one hand, people's use of primary healthcare depends on the system earning the trust of the community. On the other hand, primary healthcare serves as a trust gateway to the wider health system ^{28,29}.

Lack of trust in primary healthcare manifests differently across settings. In the public sector, despite the vast footprint of free primary healthcare, patients often seek care in the relatively expensive private sector. In the private sector, patients frequently bypass general practitioners and go directly to specialists. Beyond the formal and qualified providers, patients also seek care with informal and unqualified practitioners ^{19,20}.

Trust should be understood not merely as a desirable social value, but as a form of health-system infrastructure. It shapes whether people seek care early, remain engaged in care, disclose important information, adhere to treatment, and return for follow-up. We examine trust from the

point of view of the supply side, demand side, and ensuring equity.

Supply side: frontline as trust ambassadors

Our discussions suggest that trust is gained through high-quality and consistent care delivery. A credible, empathetic and highly trained frontline workforce that focuses on problem solving is important for this to happen^{28,29}. The community health workers (ASHAs) are often overworked, underpaid and under-capacitated^{30,31}. Experts believe that while strong, well-trained, properly compensated frontline workers are a pre-requisite, they don't need to be doctors. Across settings, the trust people place in the frontline rests on a consistent set of observable characteristics rather than on credentials alone: competence, consistency, accessibility, empathy, accountability, and problem-solving capacity.

Bright spots

These organisations show that the frontline can be deliberately engineered for trust, through higher skill levels, high-touch first interactions, and earning trust on simple needs before moving to complex care.

- **Dvara:** Gain trust through high-skill frontline workers who undergo a longer, government-approved curriculum.
- **Even Healthcare:** a managed-care provider, employs dentists as care managers and first point of contact for credible, high-touch interactions.
- **Circle Health:** employee health platform earns trust through problem-solving first for claims or acute care first, after which employees engage far more in chronic-disease behaviour change.
- **Ujala Cygnus (Sehat Chaupal):** runs free community outreach and screening camps ("chaupals"): 15–20 daily across six North-India states, extending preventive primary-care reach at no point-of-care cost.

Demand side: community participation

 *We can't wait for people to show up, no matter how cheap, how proximate... people have taken the price point to as low as 10 rupees per consultation, and still do not get walk-ins. So it's not so much the price barrier. It's the why-should-I-go barrier.* 

- Bindu Ananth, Founder & CEO, Dvara Health Finance

On the demand side, trust is built by integrating the voice of the community^{28,29,32}. Communities are often treated as passive service recipients. Scaling comprehensive primary healthcare requires institutionalizing community networks as co-owners of local health infrastructure and quality of services. Communities can play a dual role: they can participate in co-creating the design that ensures solutions are designed by and for the community, and they also act as an ongoing accountability force. This can improve self-care, problem-solving capacity, or cultivate long-term community legitimacy^{28,32}.

Bright spots

The bright spot here shows what it looks like to hard-wire the community's voice into how local care nodes are designed, governed and evaluated, not as consultation, but as co-ownership.

- **Swasti (i4We):** embeds the community voice directly into the design, governance and continuous evaluation of local care nodes, improving long-term retention and trust (case study, Appendix 1).

Ensuring equity

Mistrust is often rational for communities who have repeatedly experienced care as unreachable, disrespectful, unsafe, etc.^{28,29}. In that sense, equity is not only about reaching vulnerable groups; it is about redesigning trust around the

realities of people with the least time, money, mobility, social power, and institutional trust^{7,8,28,32}. Additional effort and safeguards must be deployed to ensure that vulnerable populations trust the primary healthcare ecosystem and ‘no one should be left behind’^{3,7,32}. Vulnerable groups such as women, children, tribal populations, castes and informal workers often experience poorer health outcomes because of geographical isolation, domestic power imbalance, and infrastructure inequity^{7,8,38}. For instance, the absence of dignified and private sanitation infrastructure at PHC deters women from seeking ANC care. Some of the inequity is outside of the clinic – the acute time poverty and lower family attention experienced by women in general and from low-income specifically often means they delay seeking care until asymptomatic chronic conditions reach late-stage complications.¹¹ A few ways to address equity could include: privacy and dignity, language/cultural mediation, flexible timing, functional helpdesk in public facilities, accompaniment, proactive follow-up, grievance/accountability loops and repairing historic wrongs^{3,7,32}.

2.2 Continuity

Continuity of care is important for management of diseases, especially ones that require care over months, years or lifelong, e.g. TB, HIV and NCDs. It is also important across the life-course of individuals, families and communities. In primary healthcare, continuity plays a unique role. Through repeated interactions, care teams develop an understanding of the person’s history, family circumstances, behaviours, values, and trajectories that cannot be captured through isolated encounters. This longitudinal understanding enables earlier recognition of change, more accurate interpretation of symptoms, more realistic care planning, and more effective self-management support. Continuity therefore functions not only as a relational asset but also informs and influences diagnosis, medical decision-making, care planning, follow-up, and outcomes at multiple points and in multiple ways.

Relational, informational, and structural continuity within primary healthcare and with higher levels of care prevents drop-offs^{2,3,33,34,35}. The continuity can be seen as progression from fixing basic issues to being systematic about coordination: (1) the system closes the most basic drop-off points, (2) it moves from reactive encounters to a proactive approach, and (3) it develops coordination infrastructure.

Closing hand-off loops

“Screening is the first step in preventing cervical cancer, but its full impact is realized when women who need care are able to access timely treatment. When precancerous changes are detected early, they can often be managed effectively with simple, low-cost interventions.”

- Divya Saraf, Strategic Partnerships Lead, Periwinkle Technologies

The most repeated theme was mismanaged hand-offs between screening and linkage to primary healthcare, and referrals between primary and higher levels of care. Millions are screened for NCDs but don’t continue in care; once patients are transferred to hospital, primary providers lose control and patients may be overtreated.

Bright spots

Each bright spot closes a different leak: one re-engages drop-offs through a phygital loop; one bakes follow-up into the screening protocol; and others close the loop by owning or partnering across care levels.

- **Swasti (Call4Svasth):** uses tele-triage plus field workers to track completions and physically re-engage drop-offs.
- **Swasti (i4We / RASTTA):** builds continuity into the screening pathway; Risk Assessment, Screening & Testing, Treatment, Active Follow-up, via Community Wellness Facilitators on a shared digital workflow.

- **Even Healthcare & Dvara:** use integration or partnerships with hospitals to run a closed loop.
- **Narayana One Health:** directs patients to its own OPDs in a closed-loop model.

Proactive outreach to high-risk clients

Primary healthcare delivery in the public sector is usually reactive encounters. A few more proactive programs, such as maternity and TB, track patients and make outbound contact. While an outbound rhythm of contact is known to improve outcomes for primary healthcare, the systems may end up overextending resources. Segmenting the patients by risk level enables frontline teams to allocate intensive attention to high-risk individuals. Private providers need payment models such as capitation to incorporate such a rhythm ^{24,26,27}.

Bright spots

These bright spots operate protocol-driven and risk-stratified outbound contact, adding convenience (doorstep checks, medicine delivery) and reducing dependence on patients' care-seeking behaviour.

- **Dvara & Even Healthcare:** follow a protocol-driven, risk-stratified outbound rhythm with doorstep checks and medicine delivery.
- **Noora Health:** a WhatsApp AI chatbot for 24/7 contact between caregivers and the system, with a nurse in the loop.

Integrated care coordination system

While the two above are high-leverage steps, a comprehensive solution is an integrated care coordination system. Features of such a system include (1) open source data system for longitudinal disease, services provided and outcomes, ideally built on ABDM rails (2) consent-driven access across primary, secondary

and tertiary systems for both public and private sides (3) bilateral referral and handoff completion tracking (4) human, digital or hybrid coordination function that includes proactive risk-stratified outreach. Such a system enables continuity, retention, cohort tracking and output-linked financing across pluralistic settings, converting isolated encounters into longitudinal outcomes.

Bright spots

The bright spot here is early infrastructure-level work, building the cross-system coordination rails that individual closed loops can eventually plug into.

- **Gates Foundation (India):** with partners, is piloting care-coordination infrastructure in states such as Odisha, Andhra Pradesh and potentially Kerala, UP and Bihar

2.3 Outcome accountability

 *We get paid for services by the insurers... If we get paid based on a percentage of the claims we avoided, then our incentive will be pretty clear: We should try and avoid claims. The key is: you want to link your business model to the right set of incentives.* 

- **Mayank Banerjee, Co-founder, Even Healthcare**

Across the deliberative dialogues, a recurring theme was the absence of clear longitudinal accountability for population health outcomes. Without that, primary healthcare struggles to operate effectively. Three critical things must happen for accountable primary healthcare. (1) the population served is clearly defined (2) success is measured by patient-level and population outcomes (3) one entity takes responsibility for outcomes.

Clear population empanelment

For one organization to take responsibility, they must be reasonably plugged into the patient

journey. Patients often freely switch between private and public sectors and different providers. Explicit enrolment to an organization establishes a clear population denominator and binds a care team to a specific group of households over time. In remote rural areas where private care is limited, the families usually stay within their PHC's network, making enrolment clear by default, whereas in urban settings it is harder to define.

Bright spots

These bright spots create a defined population by design through closed-loop networks, integration with hospitals or insurance, or subscription enrollment, so one team can be held to a specific group.

- **Narayana One Health (Aditi):** a closed-loop primary healthcare network linked to its own insurance, establishing a clear population.
- **Even Healthcare:** uses its own hospitals
- **Dvara / Superhealth:** use subscription plans to bind a defined population to a care team.

Longitudinal outcome measurement

Primary health data systems often track activities rather than actual improvements in long-term patient wellness ^{11,25,36,37}. The organizations involved must align on the outcomes that matter to patients first. These could include clinical outcomes, quality of life measures, and patient

experience measures - then building longitudinal outcome registries that enable accountability ^{23,36,37}. Global Development Incubator is incubating an initiative precisely for this purpose: The People's Commission for Healthcare Improvement. It has been conceptualized as an AI-enabled outcome registry accompanied by improvement support for providers.

Bright spots

No delivery innovator anchors this sub-theme; instead, a standard reference shows what to measure, which any of the empanelment models can potentially adapt.

- **ICHOM:** (reference) overall adult and child health outcome sets give ready examples of what to measure in primary healthcare.

One entity takes accountability

Any one entity needs to take primary accountability for the outcomes, and in turn hold other actors responsible for their role. For the government sector, this accountability usually happens through performance management. It is important to replace top-down hierarchical accountability with supportive supervision, mentoring models, and team-based incentives. For NGOs, incentives and intrinsic motivation both matter. For the private sector, a managed care organization or even a risk-bearing provider could take accountability for outcomes, while the

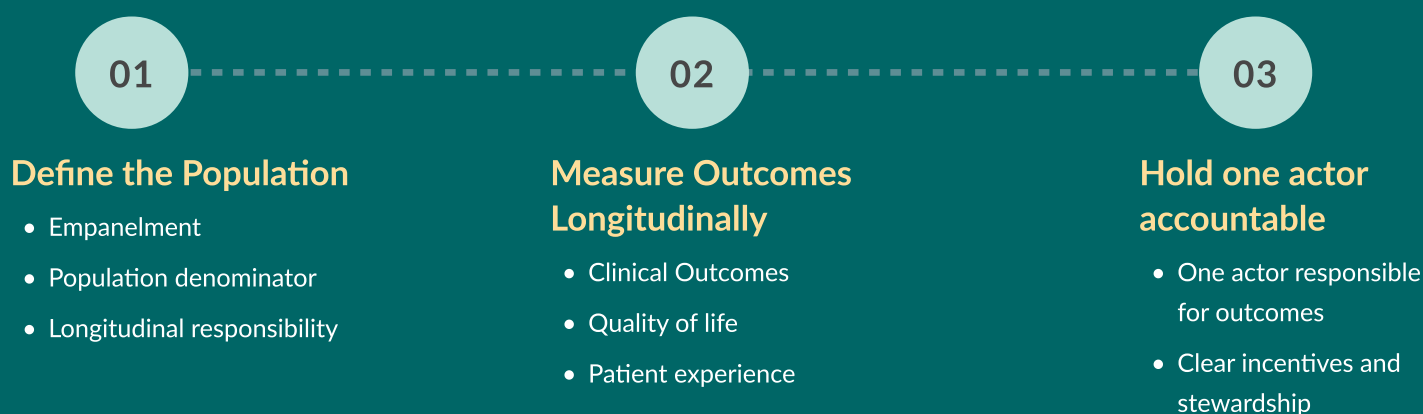


Figure 3: Establishing outcome accountability

insurance or patients hold them accountable via contracts. The entity that bears accountability also gets rewarded and bears the financial risk.

The government can play an integrative role in bringing these three together. Either via strategic purchasing (more in section 2.5) or by creating outcome-linked competition amongst providers ^{24,26,27}.

 Bright spots

The example here shows a public-system route to clearer ownership: a dedicated administrative cadre that frees clinical staff and concentrates operational accountability.

- **Bihar:** deploys a specialised, non-medical “health manager” cadre to own administrative tasks (also referenced under 2.4).
- **Loop Health:** Loop aligns their financial model with outcome improvement, holding themselves accountable

2.4 Financing and governance

India's CPHC ecosystem is rich in delivery innovation, yet most of it stalls at scale. Financing, and governance systems are not built to make adoption and sustained performance possible ^{16,17,24,26}. Two structural mismatches explain why.

Pardox 1: Value creation and value capture paradox in primary healthcare

Out-of-pocket spending in India is coming down, but most of that fall comes from hospitalization ²⁷. Primary healthcare has not seen the same shift. Families currently pay for most routine primary healthcare. When the family can not afford it, they defer prevention and promotion, which creates downstream health issues and costs ^{23,24,27}. In a steady state, the government and insurance programs should cover the primary healthcare costs too.

While primary healthcare can create immense value, often the value (better health, cost saving) is captured in tertiary healthcare or by the payer, with no way to share it back with primary healthcare providers.

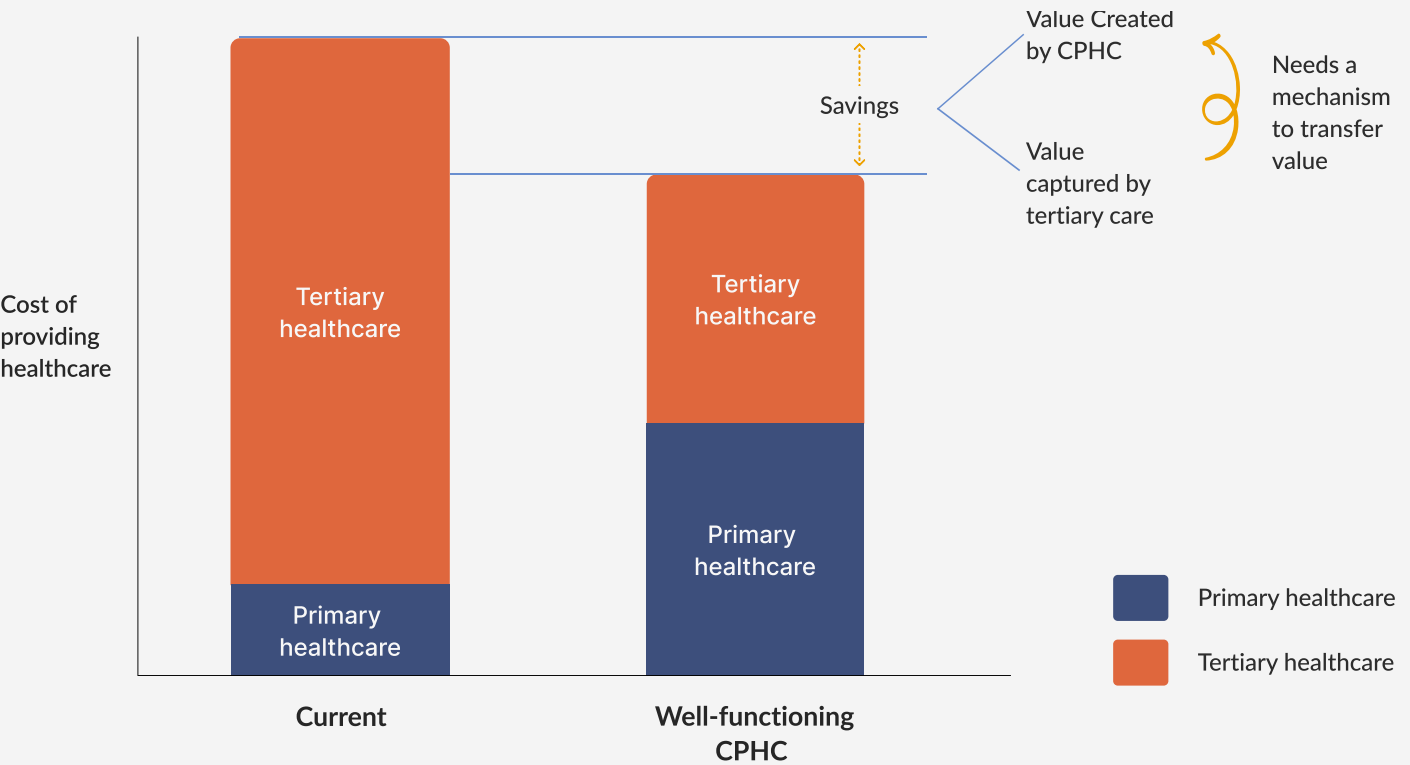


Figure 4: Value creation and value capture mismatch in healthcare

Without this alignment, prevention will remain systematically underinvested in.

Paradox 2: The “misaligned timelines”

Similarly, another misalignment drives underinvestment in CPHC. The expected timeline for returns is different for different interventions and stakeholders. High-performing comprehensive primary healthcare systems succeed when financing, accountability, and governance mechanisms address the misalignment in the time horizons ^{2,3,24,26}.

Together, these two paradoxes make financing and governance the main constraint for CPHC. High-performing systems aim to resolve these by designing financing, accountability, and governance more deliberately. That design can be organised around three questions.

- 1. Is there enough money?
- 2. Is it paid the right way? — Does payment reward continuity and outcomes, and return value to where it's created?

3. Is governance designed for scale? — Do regulation, governance, and team-management systems let good models grow and sustain?

We attempt to answer each of these questions below.

1. Is there enough money?

Based on facility-level tracing, it is believed that less than a third of government health expenditure reaches primary healthcare centers and preventative services—well below the National Health Policy target of two-thirds, causing a severe funding gap for local health and wellness centers. This shortfall is compounded because primary healthcare lacks a discrete budget line and is reconstructed after the fact across overlapping program heads. Public outlays disproportionately favor tertiary institutions and hospitalization over the less tangible comprehensive primary healthcare (CPHC) ecosystem ^{9,20,27,56}.

A few ways the envelope for primary healthcare can be expanded:

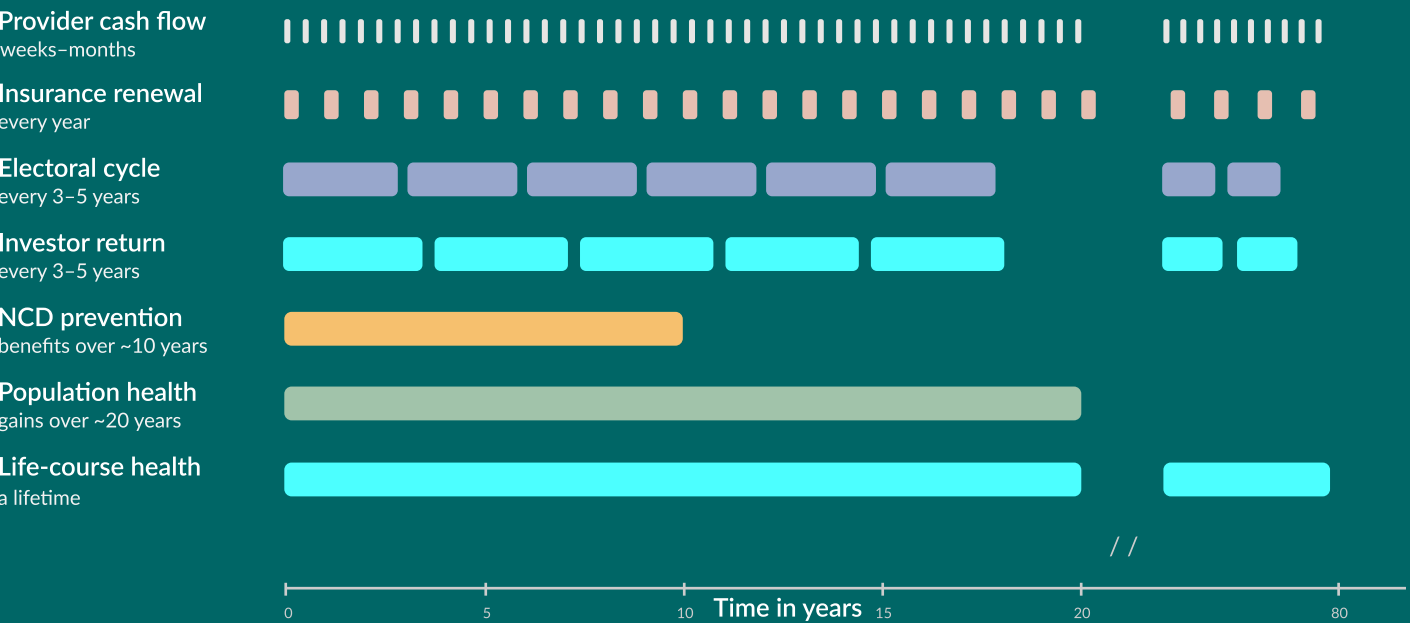


Figure 5: Timeline misalignment in primary healthcare

Bright spots

Each example widens the envelope from a different source: repurposed public funds, community pooling, or multilateral programmes.

- **World Bank EHSDP:** Programs like the World Bank's Enhanced Health Service Delivery Program (EHSDP) target comprehensive primary healthcare strengthening across states to increase facility utilization and strengthen local health governance¹³.
- **District Mineral Foundation (DMF) funds:** Public administrators use non-health funds such as District Mineral Foundation (DMF) funds with conventional health outlays in mining-affected regions to upgrade clinical facilities and fund competitive salaries to retain doctors¹¹.
- **Self-help group networks:** Peer networks pool small, regular member contributions from women's self-help groups into localized health savings accounts to cover cost of preventive care and reduce out-of-pocket spending during a health crisis¹². Community networks have also been used to improve reach and affordability of health insurance by reducing the customer acquisition costs.

“ One of these primary healthcare chains in UP works on a health package enrollment customer acquisition cost (CAC) as low as 60 to 70 rupees a user, where the local self-help group leader acts as the frontline agent. ”

- Sachin Aggarwal, Partner, Independent BFSI expert

2. Is it paid the right way?

We look at this problem from the perspective of the **(1) public sector, (2) private sector, and (3) from an intersectoral lens.**

Public sector: allocating funds effectively and ensuring that allocation turns to outcomes.

The Lancet Commission indicates that public financing must flow directly to frontline teams alongside enhanced provider autonomy to optimize resource use^{24, 26, 27, 56}. Public allocations remain largely incremental, reproducing historical patterns rather than responding to actual disease burdens or capacity gaps. Shifting to equitable models requires need-based allocation frameworks, drawing insights from international precedents such as the Western Cape Equitable Resource Allocation (ERA) model, which constructs need scores using population size, socioeconomic factors, and disease burden. This approach relies on three core design principles: emphasizing objective population need over historical demand, executing slow financial transitions to prevent local administrative disruption, and anchoring allocation formulas in routinely available data rather than one-time surveys. Thought leaders in India also believe such differentiated funding models are critical at the sub-state level, allowing high-burden, low-capacity districts to prioritize basic infrastructure and quality improvement and high-capacity regions to focus on advanced needs such as chronic disease management^{24,27,38, 55, 56}. States like Andhra Pradesh and Bihar are trying decentralized revenue models allowing public clinics to retain a percentage of earnings for local facility management.

Bright spots

These show allocation moving toward local control and objective need — letting clinics keep earnings, and weighting funds by burden rather than history.

- **The Meghalaya Internal Performance Agreement (IPA)** is a results-based financing initiative established under the Meghalaya Health Systems Strengthening Project (MHSSP) supported by the World Bank. It ties funding for state, district, and facility-level health administrative units to the

achievement of specific quality and management indicators to improve public healthcare services.

- **Andhra Pradesh & Bihar:** decentralised models letting public clinics retain a share of earnings for local management.
- **Western Cape ERA model:** need-based allocation weighting population, socioeconomics and disease burden.

Private sector: Capitation/subscription models:

“We don't really do too many preventive things despite wanting to, because it's difficult to generate ROI on that. Current financing and investment models often favour shorter-term returns, making long-term preventive care difficult to finance.”

- Jagdeep Gambhir, Founder & CEO, Karma Healthcare

“Most models don't work if the interests are not aligned; there has to be skin in the game for the consumer, the provider, and the insurer; otherwise, you just create waste, abuse, and someone always loses.”

- Mayank Bhatwal, CEO, Aditya Birla Health Insurance

While we see the private sector investing in multiple hospital chains, we do not see the emergence of strong private primary healthcare networks with a few possible exceptions such as Karma Healthcare (see case study in appendix 1). This means, currently no at-scale profitable business models exist for private primary healthcare. Three main reasons: (1) small ticket size and human resource intensity, (2) lack of value capture and sharing mechanism, (3) lack of longitudinal payment models and willingness to pay for prevention.

The Lancet Global Health Commission on Financing Primary Healthcare highlights that a capitation model provides the necessary upfront capital and shifts financial risk and reward to providers, incentivizing long-term population health management²⁴. In a capitation model, the primary healthcare provider (either a facility or organization) takes care of a patient for a fixed annual or monthly fee. This fee can be structured based on a broad risk level of an individual and can include or exclude tertiary care^{24,26}. The payer can be insurance or self-paying patients. To avoid moral hazard on the part of patients, an element of co-pay can be introduced for insurance-based models^{26,27}. While it is important to define thresholds for achievement of outcomes including patient-reported ones, market forces such as renewals often create an incentive for outcome achievement.

Bright spots

Karma Healthcare: a rare private primary-care network; illustrates regulatory ambiguity around remote practice (case study in Appendix 1).

Bridging across sectors through strategic purchasing from private/CSO providers

While multilateral organizations strongly support strategic purchasing and the government of India has adopted it for tertiary care, examples of strategic purchasing for primary healthcare are rare. Governments have tried a few strategic purchasing models, e.g., NHM's Free Diagnostics Service Initiative and NHA's e-RUPI unbundled diagnostics pilot. They have thought about purchasing “screening” services, but there hasn't been a lot of thinking on larger and comprehensive adoption for the CPHC context specifically^{6,24,58}. Full primary healthcare or a narrower NCD care can be brought under capitation-fee-based strategic purchasing.

For instance, in a USAID-funded tuberculosis control pilot in Maharashtra, payments to private/NGO providers such as Sevamob were

tied to verified milestones: fifty percent upon digital case confirmation, twenty-five to thirty percent for full treatment adherence, and ten to fifteen percent for nutritional support. While not linked to outcome, this can act as a feasibility precedent.

Bright spots

These show milestone-linked payments to a private/NGO provider.

- **NHA's e-RUPI pilot:** strategic purchasing for screening services with purpose-defined e-RUPI coupons
- **Sevamob:** milestone-linked payments in a USAID-funded TB pilot in Maharashtra, a strategic-purchasing precedent.

3. Is governance designed for scale?

In this section, we delve into the question “Do regulation, governance, and team-management systems let good models grow and sustain?” We examine this question in detail from public and private sector perspectives.

Public sector: team governance and organizational culture

Primary healthcare teams frequently experience fragmentation because lines of administrative accountability for Community Health Officers, ANMs, and ASHAs run vertically to different supervisors rather than laterally to each other. There are some overlaps between CHOs and ANM responsibilities.

Such lack of clarity makes it difficult to perform in a role and limits frontline worker autonomy and collaborative problem-solving. Experts believe flipping the power equation within the organizations, with the frontline becoming the most powerful and organizations supporting them to do their job (servant leadership), is required for improving outcomes. As discussed in section 2.3, team-level goals, performance reviews, and incentives create a culture of data-driven iterative improvement and learning loops.

Freeing up time to focus on clinical aspects can increase effectiveness. Bihar, for instance, deploys a specialized, non-medical "health manager" cadre to oversee administrative tasks, which builds local operational ownership and insulates clinical staff from bureaucratic burdens.

This internal culture can be supplemented by mentoring. Johns Hopkins University's work in Gujarat is creating emerging evidence for skill building via mentoring models with internal coaches, while Amphealth has done similar work with external coaches in sub-Saharan African countries such as Ghana. The most important skills are not only clinical, but also relational. Dvara believes their most important differentiator is relational: motivational interviewing that leads to health behaviour change.

Primary healthcare innovations often fail to scale not because they lack clinical validity but because regulatory and governance frameworks remain unclear ^{14,15,16,17}. Governance applies at different levels, especially in public systems: national, state, district, and facility levels. We visualize governance elements at different levels in the diagram below.



Figure 6: Governance and regulatory aspects viewed at different levels

Bright spots

These show relational and mentoring capability as the differentiator, internal and external coaching, and motivational interviewing as a core skill.

- **Johns Hopkins (Gujarat) & Amphealth:** mentoring/coaching models (internal and external coaches) building frontline skills.
- **Dvara:** motivational interviewing for behaviour change is its key differentiator.

Private sector: regulatory considerations

Scaling primary healthcare innovations requires clear, nationally valid standards. Private healthcare networks such as Karma Healthcare face complex operational constraints due to an ambiguous regulatory landscape regarding remote medical practice and task-sharing protocols. Frontline networks frequently experience administrative bottlenecks when securing permissions from local district administrations to launch digital or mobile services in remote geographies.

We summarize the challenges and emerging solutions around financing and governance in the diagram below:

Challenges in financing CPHC

- Small ticket size, high volume, network size
- Human resource intensity
- Value creation without value capture
- Lack of longitudinal Payment models

Emerging solutions

- Capitation fee models
- Application of strategic purchasing
- Integration with tertiary care or insurance
- Alternative to insurance: Subscription models/ health savings accounts

Figure 7: Challenges in financing CPHC and emerging solutions

2.5 Tech & AI

Technology and AI's transformative potential are important levers for the present state and future of primary healthcare.

The screening, diagnostic, and curative technologies form one important piece of this. For such new technologies, the important questions are (1) whether they are cost-effective as compared to standards of care and (2) whether they are well integrated into the care pathway. Isolated technology interventions can sometimes be value-destroying^{23,40,41,42}.

Digital technology has traditionally been treated as a tool for **record-keeping** and upward bureaucratic reporting. We believe that cost-effective and scalable tech and AI solutions can act as an **affordability and access lever** for healthcare. AI could potentially transform the way care is delivered and used. The priority is no longer debating whether AI will substitute human tasks, but determining how rapidly these platforms can be validated against rigorous human specialist benchmarks to safely automate or augment tasks that can be.

Such solutions must be applied in the right context and with safety guardrails to ensure high quality and equity. While the medical field,

dealing with risk to human life, is right to be risk-averse, this landscape establishes that tech and AI can and will radically augment clinical care within a few years' time horizon. By utilizing AI to reduce burden of the tasks such as documentation—which currently exhausts a significant proportion of frontline nursing capacity - the ecosystem can lower delivery costs, transfer cognitive load to generalist care teams, and reclaim the absolute core of medicine: relational last-mile reach, empathy, and community trust^{43,44,45,46,47,28,29}. AI and digital technologies can strengthen continuity by making longitudinal information visible, actionable, and available at the point of care.

Viewing tech and AI as capabilities

A high-functioning PHC system has three types of capabilities:

1. **Clinical capability:** Can we deliver technically safe and appropriate care?
2. **Relational capability:** Can we establish trust and maintain connection that results in people seeking care, reaching care, receiving care, and being retained in care over time?

3. Interpretive capability: Can we understand what is happening in this person's life well enough to help them navigate health over time?

In light of these three capabilities, how can Tech and AI play an enabling and transformative role?

It is important to understand that all tech and AI solutions should not be viewed with the same capability level. Lowest capability level tasks are administrative tasks, demanding accuracy but not judgement. Clinical tasks require more judgement

in addition to following protocol. But even all clinical tasks are not at an equal capability level. For instance, high-volume screening, which utilizes low-cost, offline-capable digital tools to minimize the population risk funnel at the community level, while definitive diagnosis demands rigorous validation against gold-standard clinical benchmarks to reduce clinical error (specificity and sensitivity). Similarly, anything that has potential side effects or is invasive in nature needs to be seen as higher risk. Considering the level of capabilities and risk, there are three levels of capabilities that tech and AI can deliver, across patient-facing and system-facing use cases ^{41,42,43,44,45,46,47,48}.

Capability layer	Patient-facing applications	Team/system applications
<u>Layer 1:</u> Digitization and analytics	• Multi-lingual automated intake • Voice-based symptom diary for ulcerative colitis	• Ambient, multilingual voice recording and medical scribing (e.g. Eka.care) • Photo-digitization of handwritten documents • Automated data analytics for improvement, flagging fraud, waste, and abuse (e.g. Heaps.AI)
<u>Layer 2:</u> Care delivery co-pilot	• Personalized self-care suggestions • Adherence nudges • Digital therapeutics for mental health and NCDs • Care navigation	• Real-time Clinical Decision Support Systems (CDSS) • Cross-disease or cross-medication risk flagging • Automated prescription error audits. • Coaching and performance management • Orchestrating providers based on protocol
<u>Layer 3:</u> Autonomous action	• 24/7 conversational triage for immediate, at-home symptom navigation (e.g. Klinik, Jiva AI)	• Autonomous diagnostic or screening (e.g. Qure.AI) • Hyper-local epidemiological outbreak tracking (e.g. Bluedot) • Automated claim adjudication • Automated outcome validation and outcome-linked payment (e.g. Digipharm, Lyfegen)

Table 1: Levels of AI capabilities

Layer 1: Digitization

This is the lowest level of capability as it minimally interacts with clinical decision-making or diagnostic reasoning. Its focus is strictly administrative: automating voice-to-text transcription, ambient clinical listening, and the photo-digitization of unstructured handwritten paper ledgers into electronic formats. The science for transcription has evolved over 3-4 decades, and it has become pretty accurate. The accuracy of transcription and flagging inaccuracies are still important capabilities.

In a country as vast and diverse as India, multiple languages, dialects, and ambient noise levels in busy government OPDs are a big challenge to overcome. Organizations such as Eka.care (case study in Appendix 2) and even BIRAC-supported projects are doing pathbreaking work on this problem. By instantly absorbing the heavy documentation lifting that currently consumes inordinate amounts of time and energy in a last-mile nurse's daily workflow, structural digitization can be deployed pan-India over a short horizon to eliminate health worker burnout and recover face-to-face patient engagement.

Bright spots

- **Eka.care:** ambient multilingual voice recording and medical scribing
- **Heaps.AI:** automated analytics and fraud/waste/abuse flagging
- **Clinikk:** ambient scribing AI application improves documentation comprehensiveness in systems that lack such digital documentation

Layer 2: Care delivery co-pilot

This layer represents an intermediate capability. On the patient side, this could mean automated behavioural and adherence nudges, digital therapeutics, and care navigation. On the system side, it represents a clinical decision support system for frontline workers and other providers.

The AI co-pilot can help raise the quality of care provided by non-physician cadres, such as

Community Health Officers (CHOs)^{16,31,41}. By reducing the cognitive load for the health providers, ensuring significantly improved recall of previous interactions, co-pilots enable generalist care teams to manage multi-disease non-communicable (NCD) cohorts. With AI co-pilots, **the role of the CHWs and other frontline workers can fundamentally change** to providers of human touch and empathy while relying heavily on care pathways embedded in the co-pilot, helping them become a high-quality generalist that is needed for integrated primary healthcare. However, such solutions must be adequately audited to guarantee it aligns with country-specific guidelines, ensuring it supports a generalist worker safely. Adoption of such solutions requires training and practice.

Periwinkle Technologies (India) and CMED Health (Bangladesh) show how AI co-pilots can be deployed responsibly (see case studies, Appendix 2). The design principle they illustrate is that co-pilots for screening should support clinical judgment, not replace it: they should not be used to decide treatment without an expert's confirmation, and users must be trained to keep a human in the loop for triage. This guardrail matters because providers can defer to AI suggestions even when those suggestions are wrong, accepting harmful outputs they should have flagged.^{42, 44, 60} The design challenge, then, is to build in this check without sacrificing the efficiency gains that make co-pilots worthwhile.

Bright spots

- **Periwinkle Technologies (India):** point-of-care technology for women's health that supports the healthcare professional at the screening encounter
- **Liver Foundation (India):** nurses augmented with AI outperform trained clinicians across dimensions measured by the study. It could elevate nurses in India to nurse-practitioners and increase the volume of capable clinical resources, especially in remote areas with low density of doctors (case study in appendix)
- **CMED Health (Bangladesh):** digital health platform assisting frontline workers and patients with monitoring and follow-up, a care-delivery co-pilot

“Even if there is a doctor who has a rating of 10 and another with a rating of 7, AI can probably cover that differential of 2-3 points.”

- Jagdeep Gambhir, Founder & CEO, Karma Healthcare

Layer 3: Autonomous action

This layer represents the highest level of capability where machine learning executes independent clinical sorting, autonomous imaging classification, counselling, care provision, or automated claims reimbursement validation. Given the risk levels, the validation threshold here is extraordinarily high, demanding multi-center, human-parallel clinical testing against blinded specialists to guarantee accuracy. It requires formal clearances from stringent regulatory bodies, such as the USFDA or CDSCO. Qure.AI is an example of an autonomous use case. The radiodiagnosis - the key clinical judgement - is done by AI (case study in Appendix 2). This layer experiences the longest adoption gestation due to deeply ingrained cultural, legal, and risk-averse institutional logic within health systems. With a few exceptions, autonomous AI requires strict "human-in-the-loop" safeguards, at the moment, to establish medical and community trust before it can achieve population-level scale^{5,6}.

We share more about how AI-enabled transformation can become part of the future of CPHC in section 3.

Bright spots

- **Qure.AI:** autonomous diagnostic screening, the clearest public-sector example (Layer 3).
- **Klinik / Jiva AI:** conversational triage for at-home symptom navigation (Layer 3).
- **Bluedot:** hyper-local epidemiological outbreak tracking (Layer 3).

2.6. Integration and convergence

To bring this conversation full circle, Primary healthcare is not merely a service delivery platform. It is an ecosystem that helps people navigate health, illness, and uncertainty over time. While trust, continuity, outcome accountability, financing & governance, and technology have been discussed separately, they are best understood as **mutually reinforcing functions**: trust brings people into care, continuity keeps them connected, outcome accountability shows whether care is working, financing/governance makes it sustainable, and tech/AI can enable these functions at scale.

The Design Lab can uniquely test an integrated framework where outcome accountability and risk-adjusted capitation function alongside artificial intelligence as a critical efficiency infrastructure. Here is how it can work: Outcome accountability establishes a defined population empanelment, making a dedicated team accountable for longitudinal outcomes. Simultaneously, transitioning to capitation payment realigns financial incentives and makes prevention economically viable and rational. Within this capitated environment, artificial intelligence serves as the cost lever. By deploying localized, task-specific AI applications that operate offline on low-cost devices, LMICs can overcome infrastructure barriers and safely automate and provide decision support. This structural integration across outcome accountability, payment model, and AI for efficiency can allow primary healthcare networks to achieve outcomes while freeing up valuable professional capacity for high-touch, relationally anchored last-mile care.

Another critical enabler of CPHC is convergence and co-ownership for CPHC across sectors: public systems, private sector, civil societies, and community platforms like SHGs working together as a unified engine to accelerate health outcomes. The synergistic effect can be realized when (i) the Government ensures scale, legitimacy, and system integration; (ii) the private

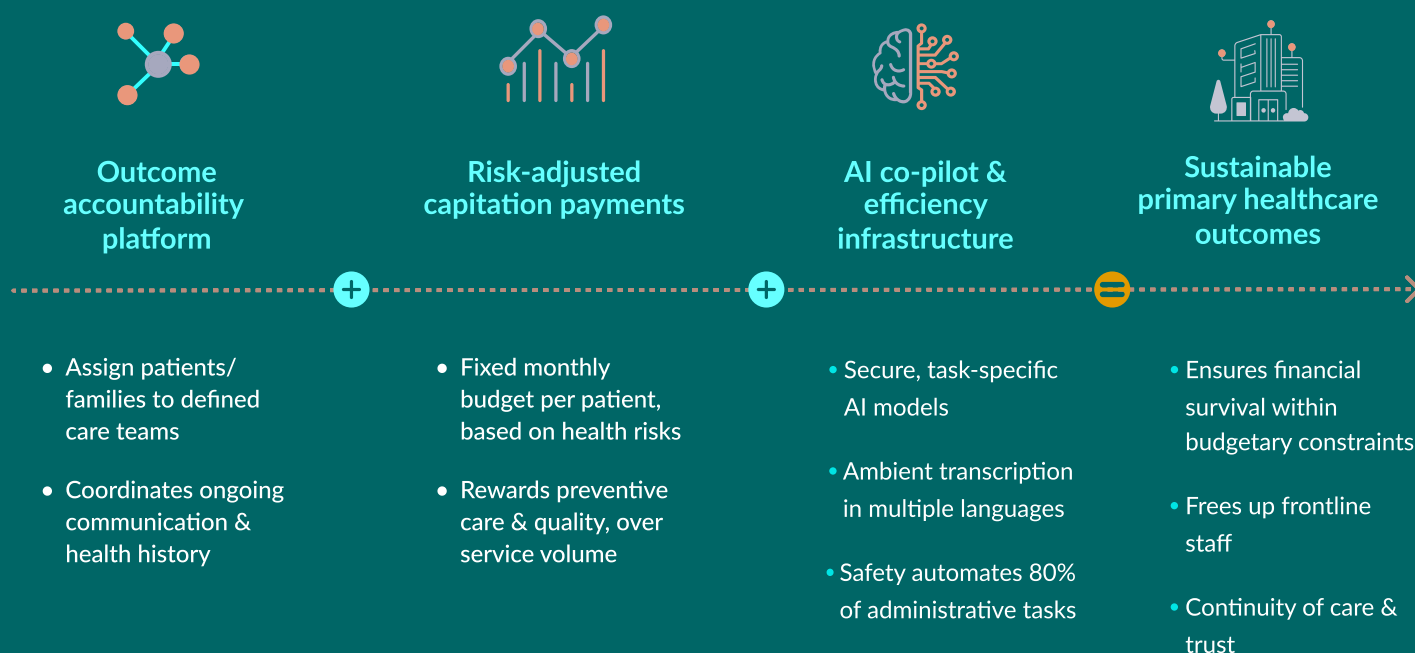
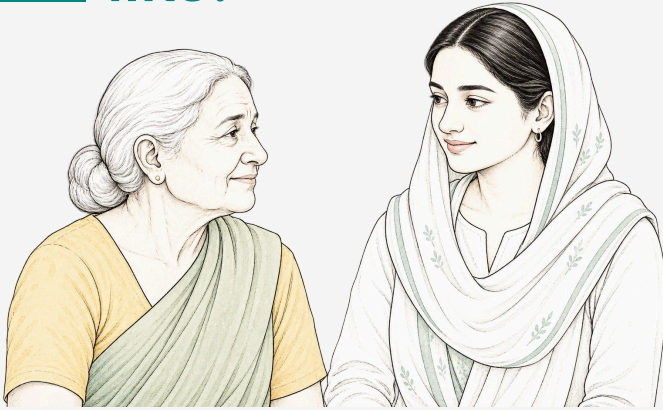


Figure 9: The CPHC Design Lab will contribute uniquely by testing approaches that integrate outcome accountability, capitation models and AI

sector drives innovation, early adoption of digital technologies, and efficiency; (iii) Civil society enables social behavioural change communication (SBCC), community engagement, demand generation, and trust. This integrated approach creates a continuous interface between communities and the health system, ensuring that individuals can not only access services but are actively supported.

Taken together, these conditions define what a future CPHC system should look like, which we will describe in more detail in the next chapter.

What could better primary healthcare look like?

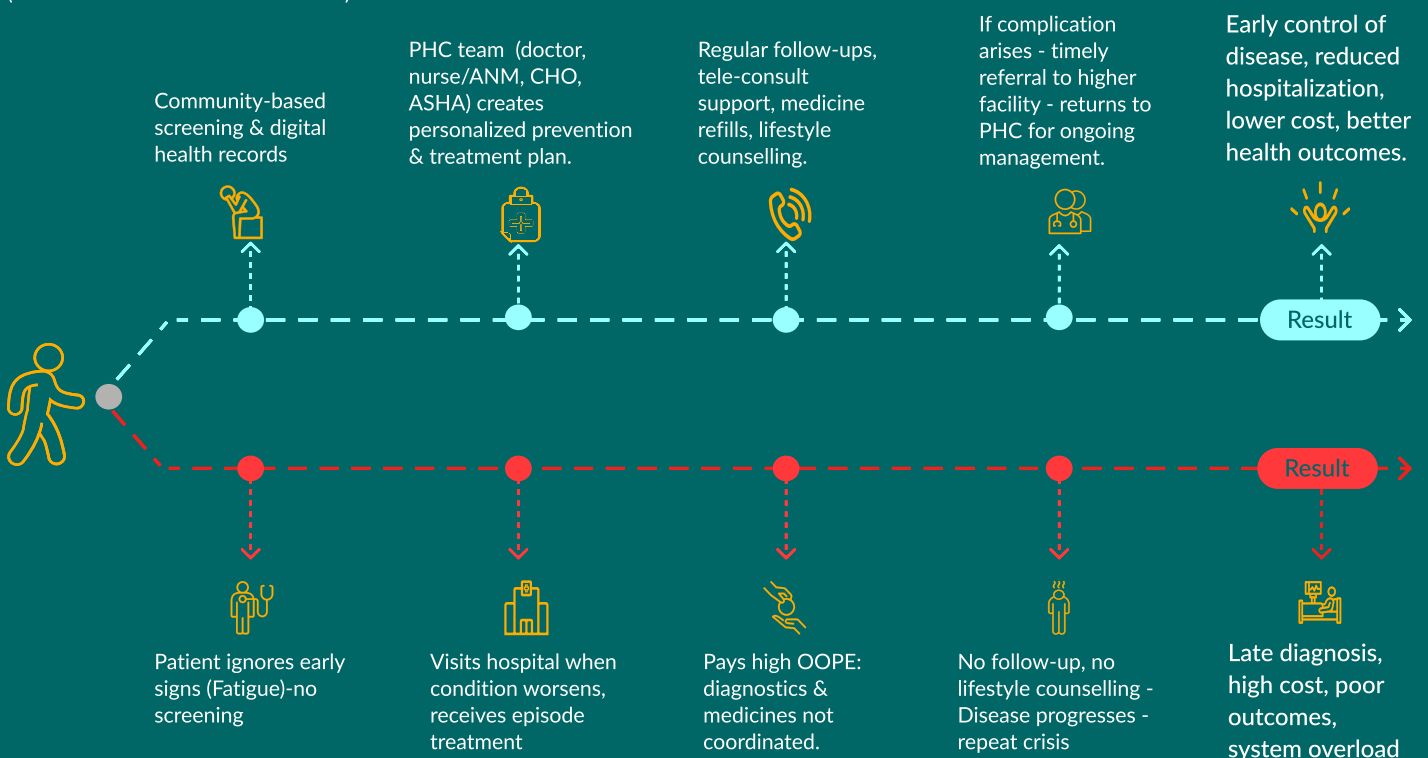


Thirty-four-year-old Priya lives in an Indian village with her family, including her mother-in-law, Lakshamma, who has diabetes. Though they are not officially poor, they live just one illness away from financial distress. They do not know how Lakshamma's diabetes is doing since she hasn't had a checkup in three years. They only visit a clinic during an emergency, paying out-of-pocket before returning home to the same unmanaged health risks.

Now, imagine a future state. Priya's family is enrolled with a local care team. When the system flags that Lakshamma's glucose levels are trending upward, community health worker Sunita receives an automated prompt to visit. During the visit, Sunita delivers the diabetes medication and educates Lakshamma. She also notices Priya's exhaustion and checks her blood pressure and asks her to visit the clinic. Two months later, Lakshamma's blood sugar stabilizes, and Priya's blood pressure normalizes with diet modification. This proactive system simply knows the people it serves, supports its frontline workers, and catches health risks before they become crises. We illustrate the difference in a schematic below.

Artpark has developed detailed illustrations of one version of the future state as well.

Patient Journey with CPHC (Proactive. Continuous. Coordinated)



Patient Journey without CPHC (Fragmented. Reactive. Costly)

Figure 10: CPHC Patient Journey - current v/s future state

A shared imagination of a future state

To imagine an ideal future, we must first set aside the constraints of today: the fragmentation, the underfunding, the culture of episodic care. As a provocation for what is possible: what would health feel like if primary healthcare were designed from scratch, around people, with everything we now know?

Primary healthcare is a team effort that starts long before someone walks into a clinic. It lives within a natural circle of care made of five layers: (1) the self-managing daily habits, (2) the family spotting early symptoms and caring for the unwell, (3) the neighborhood pharmacist providing quick advice, (4) informal community healers offering close-at-hand support, and finally, (5) the formal medical team stepping in for safe, expert treatments. ⁶¹

In an ideal future state, the care team knows the households they serve in terms of histories, risk, and preferences. The health workers have alerts to contact the right person before complications arise. Referrals are completed, tracked from initiation to outcome. And the frontline health workers are supported with priorities, identifying risks, and decision support.

To answer what such an ecosystem looks like, we studied international comparators ^{6,51,52,53,54,57,58,60}. Alaska's Nuka System of Care, Brazil's Family Health Strategy, Thailand's Universal Coverage Scheme, South Africa's Ward-Based Outreach Teams, Indonesia's Puskesmas model, Costa Rica's Basic Integral Health Teams (EBAIS), and Sri Lanka's Medical Officer of Health (MOH) area system have some common features. Despite vast differences in geography, income levels, governance, and disease burden, the systems that work converge on the same foundational design choices. They are built around trust, continuity, and longitudinal accountability for outcomes. While the form varies across contexts, the underlying architecture is fairly consistent. Some of these models have also demonstrated outcome

improvements: Costa Rica's EBAIS was associated with a 13% reduction in age-adjusted mortality over nine years; Thailand's Universal Coverage Scheme with infant and child mortality roughly 20% lower than a matched synthetic control; Sri Lanka's MOH model reduced maternal mortality from approximately 500 to 39 per 100,000 live births between 1955 and 2006 – one-tenth the South Asian average; and Alaska's Nuka System sustained 36% fewer hospital days and 42% fewer emergency visits over more than a decade ^{51,52,53, 54}. We draw on these models to distill the principles that made them work and to understand how India can apply these principles, with its current capabilities.

What successful systems share?

Across models we examined, the success factors have **three core pillars**. (figure on next page)

Pillar 1: Establishing the patient-system relationship:

The foundation of every successful system is a well-designed relationship between a defined population and care team.

- **Trust, earned and designed.** Relational continuity is intentionally built by treating patients as co-owners of their health, and by recruiting health workers from the communities they serve.
- **Defined cohort responsibility.** Every household is explicitly assigned to a specific care team. This creates a clear population denominator and assigns accountability for outcomes and for follow-up to a team. Empanelment is the prerequisite for proactive care, continuity, and accountability. Building and sustaining an empanelment system is itself a capability that develops over time. Ariadne Labs and the Primary Healthcare Performance Initiative have published a structured implementation guide that maps the evidence-based steps for establishing and maturing empanelment across different system contexts ⁴⁹.

- **Proactive rhythm of contact.** Teams proactively conduct health risk assessments before clinical need arises. In addition to simple home visits, it includes risk stratification, structured protocols, and longitudinal follow-up.
- **Patient and caregiver agency.** The WHO guideline on self-care defines individuals, families, and communities as co-developers of health services, with self-care as a legitimate part of formal primary healthcare ⁵⁰. In most health systems, this potential goes unrecognised. Guided self-monitoring, symptom tracking, and structured household triage tools enabled by AI may make self-care visible, accountable, and clinically connected. The patient-system relationship would then become an equal partnership.

Pillar 2: Configuring the frontline care team:

Care is provided by a team with community health workers, mid-level providers, pharmacists, nurses, and doctors. The composition is matched

to the needs of the population it serves.

- **Frontline leadership.** The community health worker or mid-level provider closest to the household is formally recognised as the primary actor carrying responsibility for longitudinal continuity. The physician's role focuses on handling diagnoses, escalation, prescription, and oversight. This allows the system to achieve both quality and scale.
- **Outcome accountability at team level.** Teams work toward a shared goal: improving the health of the people assigned to them. Performance is measured, externally verified, and fed back to the team as a tool for continuous improvement. Accountability is reinforced through team-level incentives.

Pillar 3: Aligning the operational backbone:

The relationship and the team cannot sustain themselves without a system backbone that finances, improves, and enables them.

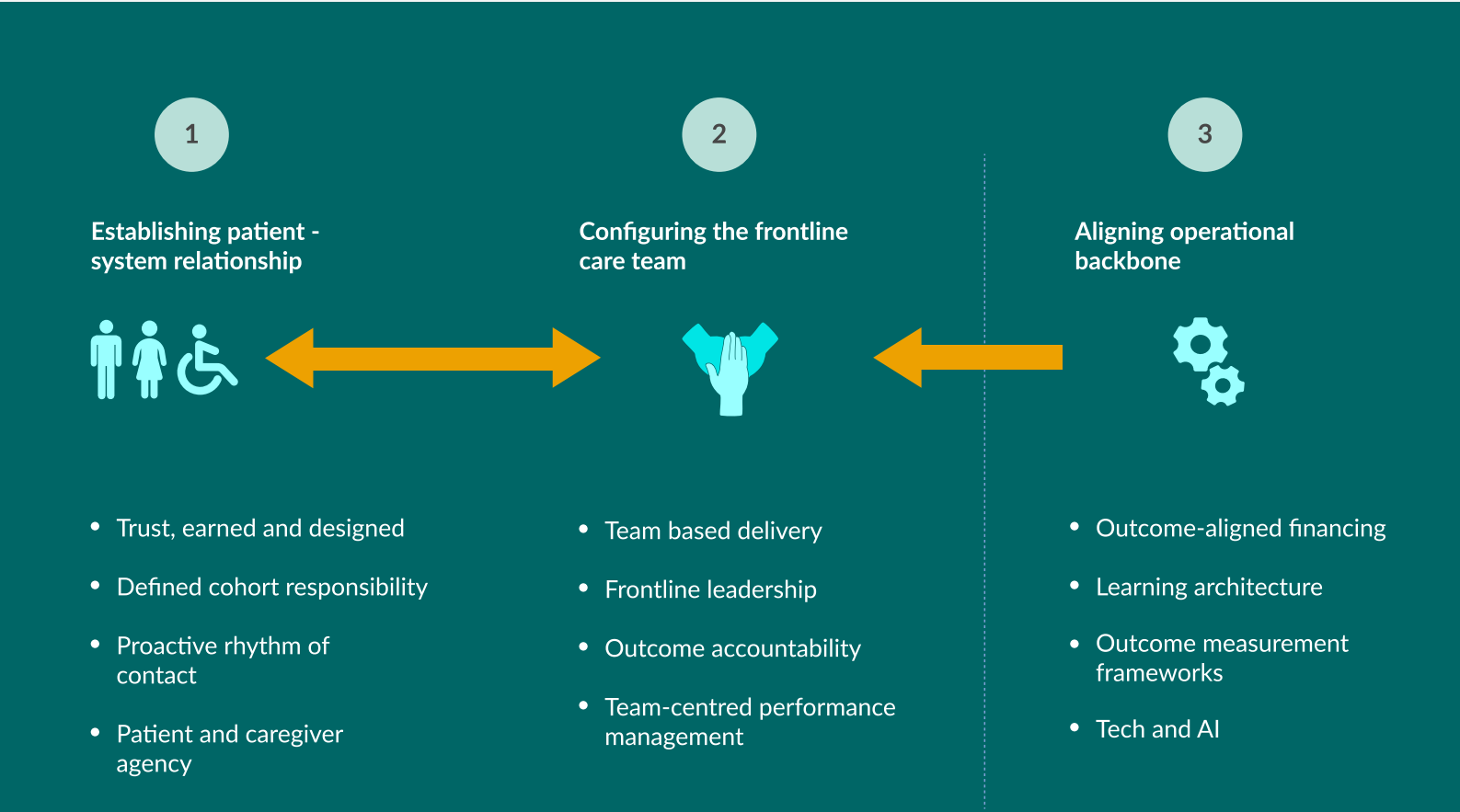


Figure 11: Common characteristics of successful primary healthcare models across the world.

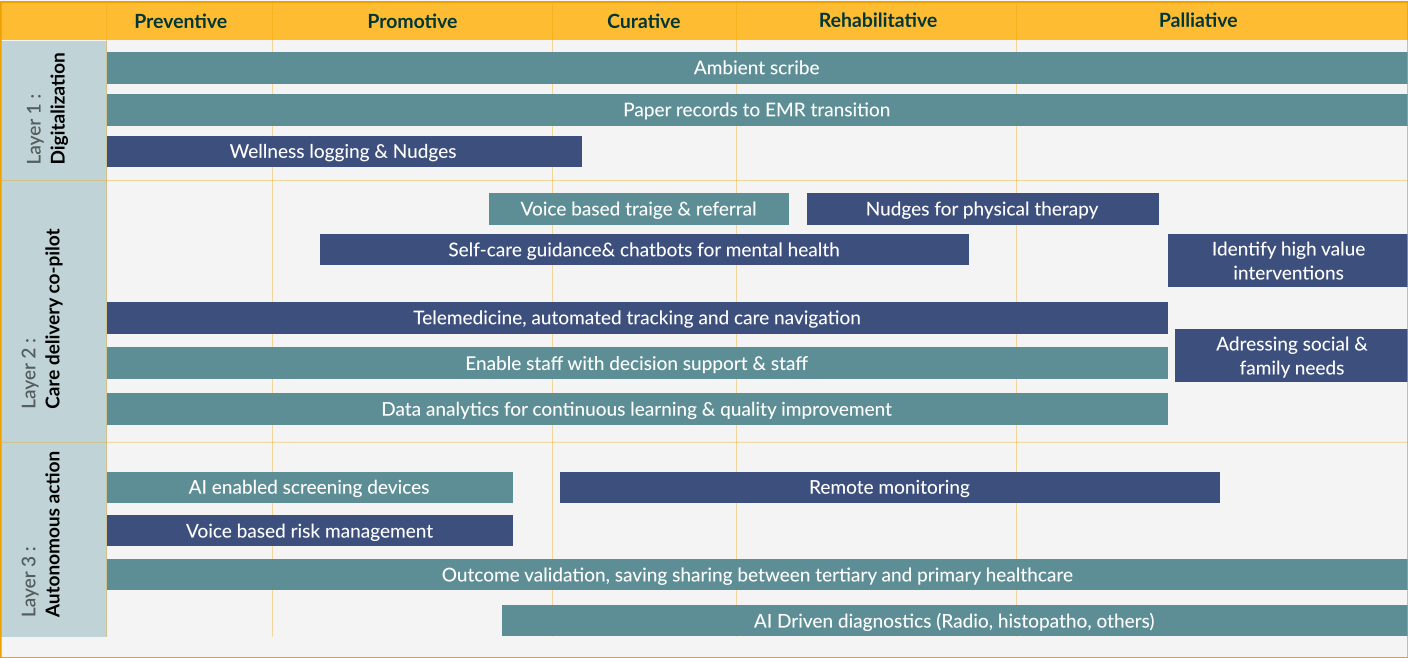
- Population-aligned financing.** Payment structures use capitation or outcome-linked contracts tied to the empanelled population. This aligns financial incentives with prevention and keeping people well.
- Learning architecture.** The system embeds supportive supervision, mentorship, and reflective practice into the routines of care teams. This ensures that improvement is continuous and geographically equitable. The system learns from its frontline and uses that learning in redesigning itself.
- Technology and AI as enablers.** Technology can serve as scaffolding that amplifies team-based care. Tech and AI can enable an actively learning system. By aggregating outcomes across thousands of daily interactions, and with audit and governance mechanisms, the technology could even continuously refine and improve the local protocols. By absorbing the predictable, administrative workload, AI frees up frontline professionals to dedicate their time to higher-quality, deeply relational, and more purposeful human interactions.

A vision for AI-enabled future of CPHC

To systematically address structural primary healthcare challenges, tech and AI solutions must be organized across care delivery workflows rather than function as isolated software additions. We imagine a blueprint for an AI-enabled health ecology serving a defined population with public sector workforce and real-life resource constraints.

Figure 12 illustrates how different use cases and layers can interface with preventive, promotive, curative, rehabilitative, and palliative aspects of comprehensive primary healthcare.

These functions should become part of a single system or, at the least, be all built to work on Digital Public Infrastructure (DPI) rails, i.e., Ayushman Bharat Digital Mission (ABDM) standards and unique ABHA registries. All patient data should flow securely through consent-driven data pipelines. This infrastructure guarantees baseline information continuity.



Legend

System facing

Patient facing

Figure 12: AI solutions across multiple delivery workflows

Successful primary healthcare systems do more than deliver services. They continuously interpret health journeys. Through repeated contact with individuals, families, and communities, care teams develop contextual understanding that enables them to distinguish transient problems from meaningful change, adapt care plans over time, and support people through uncertainty. This interpretive function is a defining capability of primary healthcare and currently requires empathetic human connection. Empathy, trust and human connection are required to make a family open their door, share a vulnerable symptom, or follow medical advice.

Approaching future state with openness

Many of the themes explored here echo what we heard in the deliberative dialogues: communities,

practitioners and policymakers all believe that (1) healthcare is fundamentally relational; (2) continuity produces outcomes; (3) the people closest to the community, when trusted, supported, well-resourced, are the system's greatest asset.

While the principles we summarized here should broadly hold, we recognise that the future holds many possibilities. The specific form of primary healthcare in ten years may look quite different from anything we can fully anticipate, especially considering the pace of change with technology, AI, demography, epidemiology, economy and talent markets. So we must approach the redesign with openness. The next section translates the insights about principles, challenges and opportunities into potential solutions for scaling CPHC in India.

How can CPHC scale, with quality and equity, in India?

Comprehensive primary healthcare will scale only when governments find it easy to operate it, providers can sustain it, funders and payers find ROI to support it, and all actors can clearly see the value it creates, while addressing the plurality of contexts within India.

means that top-down models struggle to get adopted. Besides, it is important to incorporate the lived experience of the communities and sub-groups that experience different levels of access, e.g., tribal areas, sex workers, urban poor, women and children.

Many Indias, many models

One-size-fits-all primary healthcare models are unlikely to work in India. India's vast diversity in geography, socio-cultural context, rural-urban divides, varying income levels, sectors (government, NGO/charitable, social enterprises, private), and hyperlocal epidemiological patterns

“India will not be served by a single model of primary healthcare; we probably need twenty different models for twenty different contexts, so the real task is to segment those contexts and design archetypes rather than chase one grand solution.”

- **Rajani Ved**, Director, Health, India Country Office, Gates Foundation

Type of states	Example states	Primary healthcare focus
Low spending / high communicable and MCH burden	Bihar, Jharkhand, Madhya Pradesh, Uttar Pradesh	Build baseline physical and human capacity; stabilise essential procurement for maternal health and infectious disease management
Mid-range spending / dual burden of diseases	Odisha, Rajasthan, Assam, Chhattisgarh	Strengthen outreach and referral networks; equal weight to communicable and non-communicable diseases
Higher spending / NCD-dominant with active private sector	Maharashtra, Karnataka, Andhra Pradesh, Telangana	Use CPHC as a platform for NCD management; develop governance & strategic purchasing frameworks for private sector engagement
High spending / high capacity / NCD dominant	Kerala, Tamil Nadu, Himachal Pradesh, Goa	Establish longitudinal digital registries; home-based NCD monitoring; multi-year chronic disease management; specialty coordination
Cross-cutting: tribal and remote populations (present across all types)	Scheduled areas in Jharkhand, Madhya Pradesh, Odisha, Northeast	Mobile and ASHA-led delivery models; address malnutrition and neglected diseases; cultural adaptation

Table 2: Illustration of how different models may be needed for different contexts.

Creating different models for different context archetypes might work better. The health financing typology developed by Mor and Shukla (2023) suggests state funding requirements and operational capacities differ substantially⁵⁷. Besides financing, states differ in epidemiological transition stage, private sector share, the presence of tribal or remote populations, and many other factors. These differences may also

exist within the state. The table below illustrates five types and corresponding focus areas for primary healthcare, inspired by Mor and Shukla's state typology. While the table above is meant to serve as illustration, the actual models have to be developed in specific local contexts.

Sectoral priorities

India's primary healthcare spans across public facilities, private clinics, non-profits, and social enterprises. To succeed, these sectors must collaborate by sharing health data through digital public networks to create smooth, trusted referral loops for patients.

Public sector

It is clear that governments are the steady-state policymakers, implementers, and payers when it comes to at-scale adoption of CPHC, especially the preventive and promotive aspects of CPHC. Despite immense political will, infrastructure updates, and widespread adoption of comprehensive primary healthcare (CPHC) terminology, state governments consistently face important gaps. Governments require **four success factors** for scaling new primary healthcare models:

- 1. Feasible operating models:** Governments need models that are simple enough to manage, feasible to staff under severe public-sector constraints, and capable of integrating with existing frontline realities. They require workflows that enhance care continuity without adding to the documentation burden already placed on community health workers.

- 1. Visibility into costs and outcomes:** State health ministries need to know what population health actually costs. Across the blurry budget lines, that visibility is often difficult. Governments also need definitive evidence on what produces outcomes. They require clear measurement frameworks demonstrating improved clinical outcomes, patient experiences, and minimum standards that provide safeguards necessary to expand across diverse districts.
- 2. Models that link outcomes and financing:** Governments require affordable, capitation-based or outcome-linked financing frameworks
- 3. Demonstrated ROI and whole-of-government investment case:** To be able to prioritize prevention-based and comprehensive primary healthcare models, the governments need clear demonstration of reduction in the long-term economic burden of avoidable hospitalizations and hence a return on investment. If we only consider ROI as savings that return to the health ministry, we understate the value of primary healthcare. Many of the returns accrue outside the health budget: reduced household financial distress, improved productivity, fewer days of work missed, poverty prevention, trust in government, and broader human capital and GDP gains. Governments need quantification of both the health-sector ROI and the wider social return on investment (SROI).

CSOs and development sector

CSOs usually consider three paths to their impact at scale. (1) Some CSOs are building their programs for adoption by governments as payers and providers at scale. In such cases, the four success factors we mentioned above become important for them as well. The earlier they involve the governments in their pilots and demonstrate the three factors, the faster the adoption and probability of success. (2) A set of CSOs are also mission-driven care delivery organizations. This may include trusts, charitable

organizations, faith-based organizations, and other non-profit organizations. The key challenge for them is to become durable, trusted, and outcome-accountable. Figuring out financing/governance models would let them deepen or expand that role and become important as well. (3) Finally, few CSO models are social enterprises which need to be commercially viable even if not profit-driven. This is only possible when the market incentives structures are favourable. Layering health services on existing CSO programs can reduce costs and expand reach. Self-help groups linked to health programs have shown measurable gains in maternal health service uptake. Organisations like FPOs, village savings groups, and ICDS networks already have trust, regular cadence, and accountability structures that CSOs can leverage.

Private sector

Commercial primary healthcare providers, managed care organizations, and private health insurers serve as critical drivers of efficiency and market-led innovation within the primary healthcare landscape. While the private sector increasingly wants to play a role in chronic and proactive care, they are yet to figure out business models. The private sector primary healthcare provision happens in heterogeneous settings, from high-investment clinics owned by hospital chains, to lakhs of single-doctor clinics, to informal/unqualified providers, to pharmacies.

“ If a patient in rural Alwar is prescribed Telmisartan for the next 5 years, thereby delaying their risk of heart attack for 15 years...who actually pays for that? Who actually saves because of it – is that an insurance provider, or an Ayushman Bharat, or a family? ”

- Jagdeep Gambhir, Founder & CEO, Karma Healthcare

To make comprehensive primary healthcare attractive to the private sector, it requires three distinct structural enablers:

- 1. Viable business models with market fit:** The private providers and payers need to figure out business models that make the low-ticket primary healthcare encounters, prevention, and promotion commercially viable. Some examples of financing models such as subscriptions, risk-adjusted capitation, or employee health management programs may make primary healthcare viable for the private sector. Insurers also suggest that to avoid risk of fraud, waste, and overutilization, a gatekeeping mechanism that does not restrict consumer choice too much and consumer "skin in the game" via copays may be required. Private primary healthcare also needs a payment mechanism that shares with them a *designated portion of health system /insurance savings*.
- 2. Risk-sharing:** Financial models such as capitation effectively turn providers into a risk-bearing entity. Additionally, the clinical outcomes for multi-year non-communicable diseases require extended gestation periods; private providers managing long-term cohorts face working capital constraints and turnover risks. Providers with relatively small P&Ls may not be able to manage that risk. Philanthropic funders can bear such innovation risk, or payers can establish a financial floor in contracts to reduce provider exposure in the beginning till revenues become more predictable.
- 3. Long-term mission-aligned capital:** Private sector primary healthcare providers are criticised for restricting themselves to transactional curative care. While part of this is profitability and ticket size, another part of this is because of traditional venture capital (VC) and private equity (PE) models that operate on short-term return timelines of three to five years. Karma Healthcare, for instance, shared that while they started with a comprehensive primary healthcare model, they had to keep letting go of preventive services because they were less profitable and difficult to justify with investors and had to focus on higher-ticket specialist telemedicine services. Mission-aligned capital

from blended financing instruments can shift the organizational focus toward long-term population health, trust-building with communities, and prevention.

“We are already facing a huge need for stronger community and home-based systems; doctors are not trained to provide that kind of care. Creating better jobs for community and allied health workers is the only way we will manage what's coming.”

- Aarushi Bhatnagar, Senior Economist, World Bank India



Circle of care

The role of CPHC design lab

The CPHC Design Lab exists to help India build primary healthcare worthy of people's trust, designing, testing, and translating models that can deliver continuity, accountability, and better outcomes at scale. The CPHC Design Lab was conceptualized based on the core recommendation of Leapfrog to Value's India Value-Based Care Strategy Report, 2025. The lab was officially launched as a strategic collaboration between Global Development Incubator (GDI), Swasti—which serves as the secretariat for the multi-stakeholder CPHC Alliance—and Indian School of Business (ISB) Max Institute of Healthcare Management.

The lab is choosing to focus first on the public sector because of both strategic and moral case: strategically, government is the only actor with the mandate, reach, financing authority, regulatory power, incentives and long-term accountability to make CPHC a population-level system; morally, if CPHC is about equity and trust, the Lab should start in segments least attractive to market forces, but still have the strongest health needs and such segments are often served by the government sector. However, that does not mean we will not engage with other sectors. Other sectors (CSOs, private sector) are important sources of learning and innovation for the Lab. The Lab recognizes AI as a critical capability because it serves as a powerful cost-effectiveness lever capable of radically augmenting clinical care workflows. The structural shift frees generalist care teams to reclaim relational aspects: empathy and community trust.

Operating model: what the Lab actually does

The CPHC Design Lab co-creates, tests, and scales equitable and people-centered CPHC models in India by driving alignment across

diverse institutional mandates toward a common goal: CPHC at scale, with quality and equity.

The rigorous learning infrastructure is made possible by multidisciplinary capabilities. Swasti, which also hosts the CPHC Alliance, provides deep public health expertise, implementation capacity, and trusted relationships with state health departments. Global Development Incubator (GDI) brings global expertise in architecting value-based systems, coalition-building, facilitation across stakeholders, and aligning complex financing models. Leapfrog to Value, whose work served as the starting point for this lab, was also incubated by GDI. Finally, ISB Max Institute of Healthcare Management delivers rigorous implementation research, operational design analysis, and independent evaluation of AI-enabled health impact.

The lab will **collaborate with** public health implementation firms, academia, and governments, among others, from time to time to work on specific pilot sites. At present, the Lab is collaborating with the Swasti and Access Health International teams, respectively, to work with the governments of Maharashtra and Chhattisgarh, respectively, for developing and piloting CPHC models. The CPHC Design Lab will closely partner with the CPHC Alliance as a distributed learning network for India's primary healthcare transition. Through continued deliberative dialogues, demonstration projects, knowledge codification, and cross-sector collaboration, the Lab will continuously bring new evidence, practical insights, and implementation experience into the Alliance. In turn, the Alliance will serve as the broader platform for collective learning, stakeholder alignment, and knowledge exchange—linking practice, policy, financing, technology, and community voice so that innovations do not remain isolated pilots but contribute to a shared movement.

Our theory of change and learning agenda

The CPHC Design Lab's theory of change starts with the idea that health systems improve not merely through the introduction of new interventions, but through the learning, alignment, and continuity-producing capabilities that enable diverse actors to work together around the long-term health of people and communities. We believe starting from ground-level operational diagnosis and moving toward

institutionalization at a state and national scale will ensure that multi-stakeholder inputs systematically translate into longitudinal patient wellbeing, out-of-pocket cost reductions, and long-term financial sustainability for the entire health ecosystem.

With learning and scale at the core of the agenda for the Design Lab, it is critical that the lab's activities are oriented toward clear learning objectives. Our working hypothesis on what the learning agenda is as follows:

Theory of Change

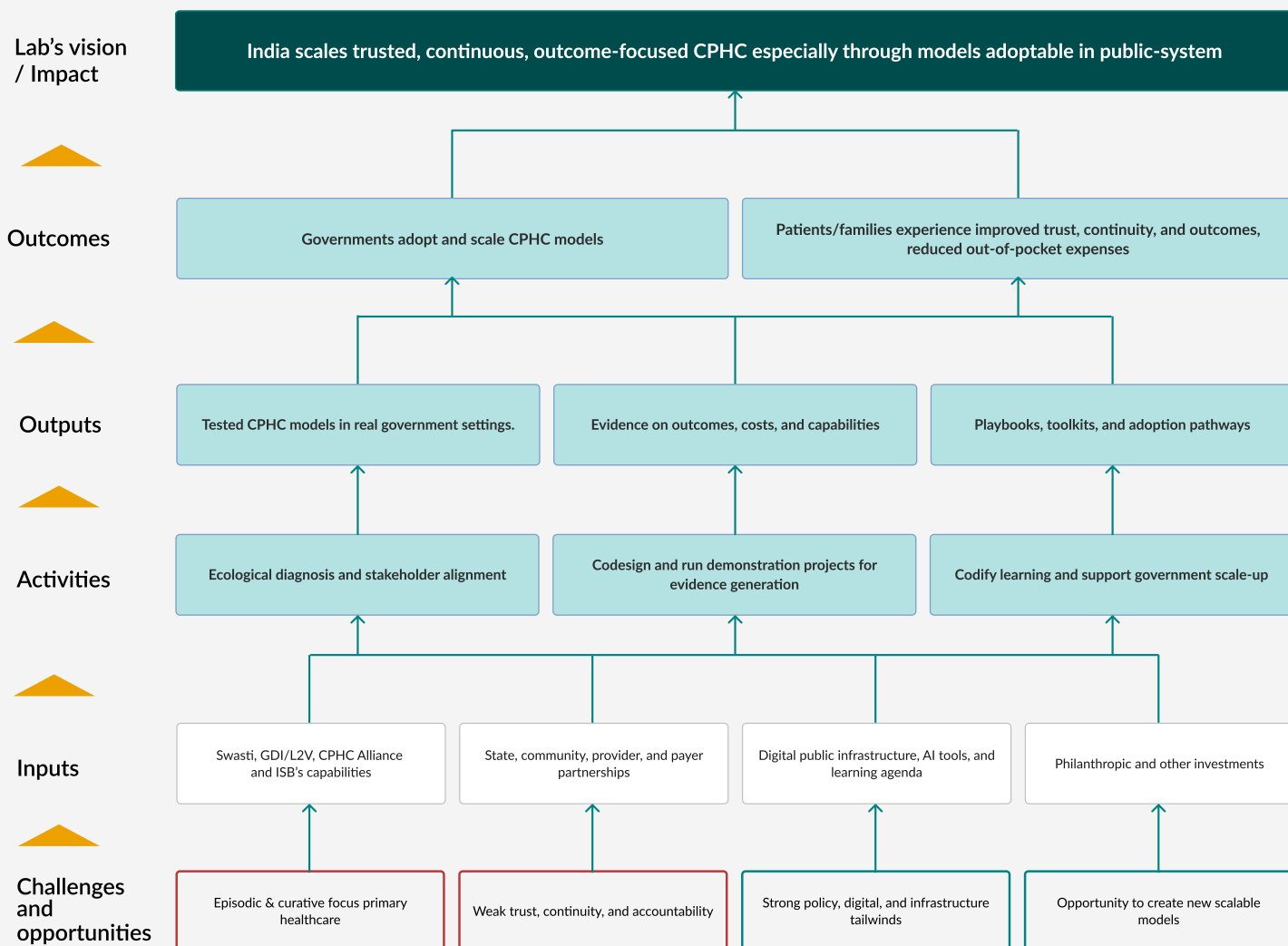


Figure 13: CPHC design lab's theory of change

Learning agenda

These are open questions the lab will work to answer through ecological diagnosis and co-design. The answers will vary by context and will shape how demonstration projects are designed.

1. How can PHCs and Ayushman Arogya Mandirs become trusted hubs for continuous care, not just access points for episodic services? **(Trust)**
2. What frontline team model can reliably manage prevention, promotion, curative care, follow-up, referrals, and chronic care within real public-system constraints? **(Continuity)**
3. What financing and accountability models can make prevention and continuity affordable, measurable, and attractive for government adoption? **(Financing and accountability)**
4. Where can AI and digital tools add genuine value – in triage, continuity, and decision support – without adding burden or weakening human trust? Where is their transformative potential greatest? **(Technology and AI)**
5. What does it take to ensure women, tribal populations, and other marginalized groups reach the same minimum health outcomes as others – given that their access barriers go beyond geography and cost? **(Equity)**
6. How can communities act as co-owners of local care infrastructure – shaping design, holding providers accountable, and sustaining engagement over time? **(Community participation)**
7. How do we balance locally relevant models while ensuring basic common standards are adhered to? **(Balance of standardization vs local adaptation)**

Guiding values

The CPHC Design Lab is guided by disciplines of CPHC, latest research, and generalist inquiry. We believe that strengthening comprehensive primary healthcare requires humility, curiosity, inclusion, equity, integrity, transparency, and open communication.

Our guiding values:

1. **Humility:** We recognize that knowledge is distributed across communities, frontline providers, organizations, policymakers, researchers, and health systems.
2. **Curiosity:** Meaningful learning emerges through dialogue, questioning, reflection, and openness to diverse perspectives, knowledge, debates, and rejecting monoculturalism.
3. **Holistic learning:** We value multiple ways of knowing: community knowledge, frontline experience, implementation learning, policy insight, organizational practice, quantitative data, and formal research evidence. Knowledge is generated not only through analysis but through experimentation, adaptation, implementation, and reflection.
4. **Systems thinking:** Health outcomes are shaped by contextual relationships among people, organizations, incentives, environments, and technologies.
5. **Network leadership:** We connect and support sectors and disciplines by practising stewardship rather than control
6. **Equity and inclusion:** Communities, patients, frontline workers, and historically marginalized groups should be partners in learning and system design.

6 What happens next?

Informed by the learning agenda and the theory of change, our approach deploys a four-part methodology designed to systematically uncover, test, codify, and scale resilient primary healthcare delivery mechanisms:

- 1. Ecological diagnosis and stakeholder alignment:** We will conduct localized deep-listening across target geographies to systematically diagnose unique primary healthcare ecology problems, map drop-offs, the reasons, relationships between stakeholders, power balance, and identify operational frictions across public, private, and non-profit health settings. The focus during the first few years is to conduct such ecological diagnosis in a few states to surface hidden coordination failures.
- 2. Co-design and implement demonstration projects:** The lab will run a people-centered

design process in the target geographies to create CPHC models with clear outcome goals balanced with flexible interventions. Such models will integrate continuous learning and quality improvement processes, driven directly by frontline care providers and regional administrators. These interventions may include fit-for-context tech and AI solutions. The immediate focus is to co-design and run demonstration projects within selected districts and taluks in Maharashtra, Chhattisgarh and other states where there is an expressed interest and need.

- 3. Codify knowledge:** We will capture the operational insights gleaned from demonstration projects. The immediate focus for the first two years is to generate knowledge products and toolkits, establishing a balance between local context-

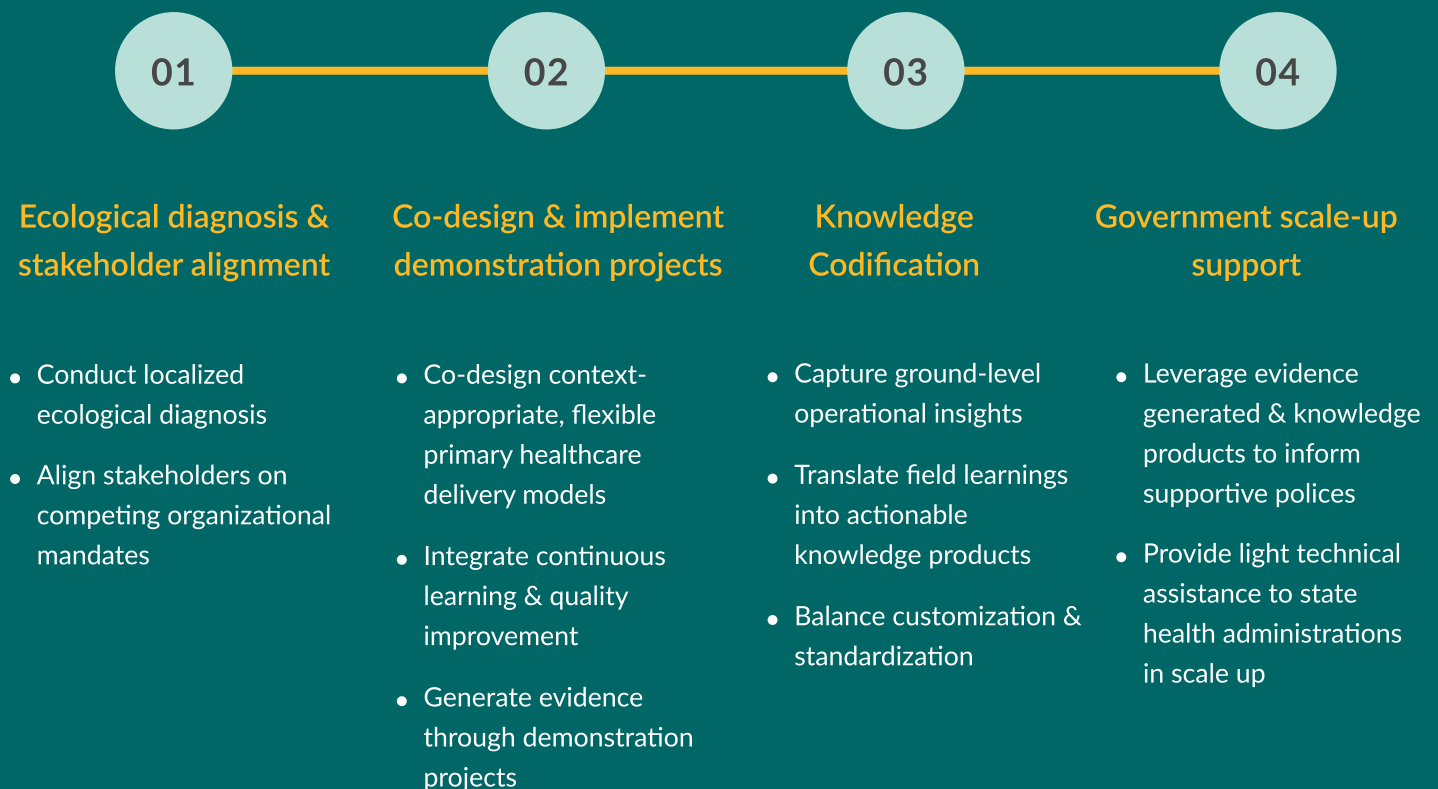


Figure 14: Core activities of the Design Lab

customization and minimum common standards. Instead of prescriptive standards, the Lab will prioritize practical guidance on the process to arrive at appropriate models.

4. Support governments in scaling: The Lab will support governments in scaling validated field innovations into public systems. The short-term focus is to leverage evidence generated at state learning sites to secure broad public-sector ownership.

What does the Lab test immediately?

Through the core activities and functions above, the Lab aims to provide all the support that the public sector, in particular, needs to scale comprehensive primary healthcare pan-India.

The Design Lab will define concrete thresholds to be able to say that the localized delivery models are ready to scale. By having clear thresholds, the initiative creates opportunity for evidence-based public health interventions that state health ministries can realistically manage, finance, and scale.

Hypotheses	How we will test	What success looks like
State governments will adopt CPHC models that fit within existing workforce and budget constraints, do not add documentation burden to frontline workers, and produce visible improvement in care continuity	Subdistrict demonstration pilots with government teams in Maharashtra and Chhattisgarh, tracking adoption frictions, workflow changes, and early continuity indicators	The state health ministry formally incorporates pilot models into a district's primary healthcare strategy
Commercial insurers and private primary healthcare providers will change clinical behavior — not just sign contracts — when given a capitation or outcome-linked payment model that returns a share of downstream savings to primary healthcare	Pilot contracts with a commercial insurer and private provider; track whether enrolled population receives proactive outreach or preventive interventions within the contract period, not just whether the contract is executed	Proactive preventive activity for the enrolled population starts happening, under the new payment model.
Localized AI scribing and clinical co-pilot tools can reduce frontline administrative burden in India's multilingual, low-connectivity public-sector settings without degrading care quality or the human relationships that drive care-seeking	Deploy ambient scribing and co-pilot tools at pilot sites; audit outputs against national clinical guidelines; collect structured feedback from frontline workers and patients	Minimum 20% reduction in documentation time per clinical encounter, with no reported deterioration in patient or frontline worker experience of care

Table 3: Three hypotheses CPHC Design Lab will test

A call to action

The CPHC Design Lab has been built on the principle of 'shared value', which means every stakeholder has a role to play in transitioning

India's primary healthcare to a continuous, outcome-focused and trusted ecosystem. The Lab invites the stakeholders to take action in a strategic and cross-sectoral way.

Governments

- Co-design subdistrict demonstration projects and embed validated field evidence into state health systems in scaling CPHC approaches
- Transition to need-based resource allocation and strategic purchasing with capitation models
- Standardize roles each type of provider plays; train, support, and compensate the frontline at higher standards
- Create space for insurance / financial products that can support prevention

Citizens and caregivers

- Take charge of their health by engaging in self-care practices, especially in managing long-term conditions, developing a sense of agency and self-efficacy
- Utilize full circle-of-care wherever possible; participate in feedback and design processes

Civil society and community networks

- Include community voice in the form of patient experiences, PROMs, and participation in design processes.
- Expand the existing self-help groups and state rural livelihood networks to serve as mechanisms for health enrolment, prevention, awareness, and as formal co-owners of health infrastructure

Philanthropic funders

- Making catalytic investments, neutralizing initial innovation risks, supporting evidence generation and codification of knowledge, for CPHC at scale
- Back blended financing strategies that combine concessional capital with guarantees to draw private investment toward underserved populations.

Tech and AI innovators

- Collaborate with stakeholders to create safety rails around AI products
- Integrate well-tested emerging solutions directly into localized district-level demonstrations.

Private sector

- Move toward structured subscription or capitation models and integrated business models.
- More mission-aligned capital investments

Annexure 1:

Bright spots in India, moving toward CPHC

This annexure presents bright spots from across the Indian ecosystem. The seven case studies were chosen because each shows a different way of building comprehensive primary healthcare (CPHC). Together they span the public and private sectors, rural and urban settings, and government and civil-society models, so that the set as a whole reflects the diversity of how CPHC is being attempted in India today. They were not selected to be representative of everything happening in the country, but to draw attention to specific, credible innovations that others can learn from.

None of these models is a complete CPHC system on its own, but each is a tangible step toward the goal set out earlier in this report: comprehensive, continuous, outcome-focused primary healthcare. So we present these as promising innovations rather than finished models. For each case, we share the innovative approach mapped against the themes identified by the report, our view on the impact and way forward, and sources to read more. The short case studies are followed by a synthesis of the common gaps that point to the next phase of CPHC development in India.

Case Study 1: Andhra Pradesh Family Doctor Program

Public, Rural & Andhra Pradesh

The Family Doctor Program (FDP) is run by the Department of Health, Government of Andhra Pradesh. It was piloted in Tirupati in October 2022 and launched statewide on 6 April 2023.

Innovation: A government-led rural model that brings scheduled doctor visits, medicines, diagnostics, and digital NCD tracking to villages through dedicated village health clinics. Its distinctive features are fortnightly doctor outreach to mapped village Health Clinics, locally recruited Community Health Workers who run

day-to-day care so patients see a familiar face, and digital, longitudinal NCD tracking linked to ABDM.

- **Continuity:** Every fortnight the doctor and health officer come to the village for check-ups, maternal care, and chronic-disease follow-up, so patients don't have to travel to a hospital.
- **Outcome accountability:** An app keeps a running record for each patient, so someone flagged during village screening is followed until a doctor confirms the diagnosis, though whether their health then improves isn't tracked yet.
- **Financing:** It operates on National Health Mission funding, shared between the central and state governments. Consultations, a set list of medicines, and routine tests are free, which is meant to cut the travel and treatment costs patients usually pay.

Impact and way forward

While the outcome tracking is limited, the implementation has generated exceptional public sector scale, operationalizing 11,854 functional health and wellness centers to record roughly 70,000 daily patient encounters. Andhra Pradesh has ranked first in India for digital Health ID generation, establishing an explicit population denominator by pre-populating household ID datasets. The way forward is to track which health outcomes improve over time, not just screening and follow-up activity.

To learn more: [Medical Dialogues](#) [Ideas for India](#)

Case Study 2: Rajasthan Ayushman Arogya Mandir Scale-Up

Public, Rural & Rajasthan

Rural sub-centres upgraded into functional Ayushman Arogya Mandirs (AAMs) staffed by Community Health Officers, under the National Health Mission (MoHFW, Government of India).

Innovation: A large-scale state effort to convert underused sub-centres into functioning clinics and push NCD and cancer screening down to the community level, shifting routine and chronic care out of crowded hospitals. The stand-out features are the scale of the sub-centre upgrade, care led by newly posted Community Health Officers, and community-based screening for NCDs and common cancers.

- **Continuity:** Villages that had little nearby care now have a working AAM within walking distance, with basic tests and generic medicines on hand.
- **Outcome accountability:** There's no tracking of health outcomes yet, but the AAMs now do more than immunisation, and they also screen for common cancers and chronic conditions.
- **Financing:** Funded under the National Health Mission with state co-funding.

Impact and way forward

The Rajasthan HWC scale-up has generated rigorous evidence of public sector care redirection. Udaipur achieved a remarkable 68% quarterly increase in patient visits after Community Health Officers were posted at sub-centers. The localized care optimization has cut down travel delays, reduced outpatient wait times, and lowered the baseline burden of out-of-pocket health expenditure for rural families.

The main gap now is about coaching frontline teams and making better use of the untied funds and facility committees (Rogi Kalyan / Jan Aarogya Samitis) that let centres manage some money locally. This will help the new infrastructure and utilization turn into continuous

care. Outcome tracking and improvement would be the next frontier.

To learn more:

[Ideas for India CSEP working paper](#)

Case Study 3: Tamil Nadu Makkalai Thedi Maruthuvam

Public, Both (Rural & Urban), Tamil Nadu

Makkalai Thedi Maruthuvam (MTM), run by the Department of Health & Family Welfare, Government of Tamil Nadu, delivers doorstep screening and care across all 38 districts.

Innovation: A state-wide doorstep model that sends locally recruited Women Health Volunteers to screen and follow up households, backed by a paperless population registry, so care goes to people rather than waiting for them to come in. Its distinctive features are home-based population screening and follow-up, outreach led by Women Health Volunteers drawn from the community, and a paperless population registry with care cascades.

- **Continuity:** Home visits bring chronic-disease check-ups and repeat medicines to people's doorsteps, which matters most for those who can't easily travel.
- **Outcome accountability:** MTM tracks patients across the cascade, i.e., from screening to control. The state measures and publishes outcomes. While screening reaches around 80% of the target group (79.4% for diabetes, 82.6% for hypertension), over 95% of those diagnosed are on treatment; far fewer reach control, i.e., 9.8% for diabetes, 35.4% for hypertension.
- **Financing:** Care is free, including home physiotherapy and a state list that covers more than half of the medicines patients need to stay on.

Impact and way forward

Rather than just counting activity, MTM tracks patients along the whole care cascade. This allows the state to analyze where it falls short. The way forward is to focus on better disease control.

To learn more:

[BMC Primary Care \(2025\) NCBI open access](#)

[BMC Prim. Care 27, 17 \(2026\)](#)

Case Study 4: Delhi and Punjab Neighbourhood Clinics

Public, Both (Rural & Urban), Delhi & Punjab

Aam Aadmi Mohalla Clinics (Delhi, 2015) and Aam Aadmi Clinics (Punjab, 2022), free neighbourhood clinics run on state budgets.

Innovation: Small government clinics placed within walking distance in low-income neighbourhoods, offering free consultations, medicines, and basic tests. What stands out is hyper-local clinic placement, free essential diagnostics and medicines, and rapid, large-scale public-sector replication.

- **Continuity:** Patients are treated when they walk in, but there's no system to check back on them afterwards.
- **Outcome accountability:** The clinics count visits and collect feedback, but don't track whether patients' health improves over time nor operate organised prevention.
- **Financing:** Care is free at the clinic, with a set list of medicines and tests paid for by the state.

Impact and way forward

Delhi's Mohalla Clinics, running since 2015, numbered 533 as of August 2023 and treat roughly 60,000 patients a day, with reported satisfaction around 90%; they also kept basic laboratory and care services running through the COVID-19 pandemic. Punjab's Aam Aadmi Clinics,

launched in August 2022, had grown to 881 (316 urban and 565 rural) by late 2025, serving about 73,000 patients a day, an average of 83 per clinic, with 107 free medicines and 47 free diagnostic tests. The model delivers fast, simple, free access to care close to home. But it is largely reactive.

The way forward is to build on that access by adding community outreach, structured prevention, and long-term follow-up for chronic conditions, so that a network designed for one-off visits can also keep people healthy over time.

To learn more:

[Frontiers in Public Health NCBI open access](#)

Case Study 5: Dvara Health Finance NEEM

NEEM (Network for Enhanced Health Outcomes), run by Dvara Health Finance in Satara, Maharashtra. A home-first chronic disease service for the "missing middle": self-employed adults aged 35 and above (farmers, retailers, shopkeepers) on household incomes of ₹25,000 to 40,000 a month, plus elderly people with mobility constraints.

Innovations: A subscription model that brings chronic care to people's homes, because at this income level the barrier is convenience, not price. Its distinctive features are proactive, home-first outreach with no clinic (so care reaches patients rather than waiting for walk-ins), salaried health workers paired with remote doctors and specialist high-risk case managers, and a single monthly subscription bundling care, medicines, and optional hospitalisation insurance.

- **Continuity:** A health worker visits her households regularly and drops off a month's medicines each time. She is backed by a remote doctor (roughly one doctor for ten health workers) and by high-risk case managers who use counselling to improve insulin adherence.

- **Outcome accountability:** A dashboard tracks each patient's movement between risk stages (from stage 3 down to 1), and the team measures its own hospitalisation rate against the insurer's benchmark of 11 to 12%, as the main proof point. Health workers are held accountable for their cohort's control rates.
- **Financing:** Two monthly tiers: (1) Rs 500 for care and generic medicines; (2) Rs 750, which bundles a Rs 3 lakh hospitalisation cover underwritten by Care insurance for those under 60 with no major hospitalisation history. Dvara's own estimates suggest that a hub needs ~ 3,000 active subscribers to break even.

Impact and way forward

Dvara self-reports strong early outcomes: a 74% hypertension control rate and a 50% diabetes control rate, both well above typical national levels, alongside about 90% monthly customer retention.

There are two main next frontiers for NEEM: (1) getting better at recruitment of health workers, a growth-limiting factor, (2) influencing partner hospitals to make hospitalizations effective and cost-efficient. Getting these right can unlock the true value of the NEEM model.

To learn more:

[Dvara Health Finance: NEEM](#) [India Med Today](#)

Case Study 6: Swasti i4We

i4We (Invest for Wellness) is a people-centred, community-led, digitally enabled primary healthcare model by Swasti. It treats health and economic security together, working across several Indian states.

Innovation: A community-led model that brings the health system to the household before illness becomes a crisis. Women from the community work as Community Wellness Facilitators (CWFs), each

responsible for about 200 households, supported by the i4We app. They follow the RASTTA pathway (risk assessment, screening, testing, treatment, and active follow-up), doing doorstep point-of-care diagnostics (finger-prick blood glucose, non-invasive haemoglobin, and blood pressure) for diabetes, hypertension, and anaemia, then navigating every referral to closure through both on-site referral and tele-consultation. Alongside care, it links families to government insurance and social protection and offers affordable, iron-fortified health products. The i4We model emphasises self-care by capacitating first responders within every family.

- **Continuity:** Each facilitator profiles and follows her households over time, using the app to keep everyone visible, so screening becomes routine, and people are not lost from the care continuum.
- **Outcome accountability:** The i4We model is built to close the loop. The RASTTA pathway makes active follow-up an explicit step, and each facilitator uses the app to keep every household visible over time, so referrals are navigated to closure and people are not lost between visits. Facilitators are assessed partly on how their community's health improves, and results are reported back to the community itself.
- **Financing:** Community-led plus blended with government health insurance, affordable health products are sold locally, and CSR and philanthropic grants fund delivery, working toward a model communities can sustain.

Impact and way forward

i4We has proven portable across very different settings, from rural poor communities and urban neighbourhoods to factory clusters. Swasti reports that it has reached over 400,000 people across more than 151,000 households, carried out about 1.42 million NCD and anaemia risk assessments, and brought roughly 92,000 people into stable management, returning an estimated US\$52 million in economic value to communities (Swasti's own figures).

Early social-return-on-investment evaluations are promising, and the programme is working toward publishing composite wellness outcome ('healthy days') data that would let these results be independently checked. The way forward is to deepen the shift from access to control by: keeping more high-risk people on treatment over time, to grow the community revenue and insurance linkages so the model can run with less grant funding, and to publish the outcome data that would let others adopt it with confidence.

To learn more:

[Swasti: i4We](#) [Swiss Re Foundation](#)

Case Study 7: Karma Primary Healthcare

Karma Primary Healthcare was founded in 2014 by Jagdeep Gambhir. It runs about 70 tech-enabled clinics across 11 states in rural India.

Innovation: A network of small, company-owned rural clinics where a paramedic on site is paired with a remote specialist doctor over video, with a pharmacy and diagnostics in the same room. Rather than high-volume general consults, Karma has shifted to fewer, higher-value specialist consultations (internal medicine, orthopaedics, dermatology, endocrinology, gynaecology and paediatrics, with eye care emerging), making specialist care viable in villages where a full-time specialist could never sustain. It also uses AI for quality assurance and targeted screening, including flagging specific patients who need follow-up.

- **Continuity:** A shared digital record maintains a patient's history across visits, though care is still mostly for specific problems rather than continuous NCD follow-up, which is hard to fund.
- **Outcome accountability:** Karma tracks consultation quality (now using AI to do it) and patient volumes, and uses its data to target screening, for example flagging patients at risk of diabetic retinopathy; broader health-outcome data is limited.

Financing: Curative consultations are commercially viable (about Rs 400 a visit today, with a target of Rs 150 at scale), while a non-profit arm uses CSR and grants to fund outreach. A subscription with top-up

hospitalization insurance is being tested.

Impact and way forward

Karma runs about 70 company-owned clinics across 11 states, and its platform has been used in over 300 locations through partnerships with other operators. Broad outcome data is limited because the care is mainly curative. On economics, a visit currently costs about ₹400, with a target of ₹150 at scale as AI and better diagnostics bring the cost down.

The way forward is to bundle affordable primary healthcare subscriptions with low-cost hospitalisation insurance, and to use national digital health rails (ABDM) so that cover follows the patient even when they change providers. The main problem in scaling is regulation, which varies by state, especially the rules on what nurses can dispense and what can be prescribed over telemedicine.

To learn more:

[Entrackr](#)

Annexure 2:

Case studies on AI in Primary Healthcare

These case studies show how AI is being used in primary healthcare, grouped by three levels: from digitising information, to a co-pilot supporting frontline staff, to making a clinical call independently. These promising innovations are at different stages of maturity.

Layer 1: Digitisation

Turning information into digital records, without clinical judgement.

Case 1. Ambient AI medical scribe: EkaScribe (Eka.Care)

EkaScribe is an AI-powered ambient medical scribe. During a consultation, it records the conversation on an ordinary smartphone or tablet, filters background noise, separates speakers, picks out the medical details, and turns them into structured, EMR-ready notes. Its audio models are tuned for Indian accents and dialects and support more than 15 regional languages, including code-switching between English clinical terms and languages such as Hindi, Tamil, or Telugu. Because it works in the background, it needs no change to how clinicians work. The company reports that it reduces documentation time by up to 80% and saves clinicians more than 12 hours a week. It also utilizes the Ayushman Bharat Digital Mission and ABHA for interoperable records.

Layer 2: Care-delivery co-pilot

AI supports frontline staff with decisions and protocols. It needs careful auditing against national guidelines so it helps without creating false alarms or alert fatigue.

Case 2. Grassroots-level screening by frontline nurses: Periwinkle Technologies

Periwinkle Technologies lets a frontline nurse (ANM or CHO) carry out cervical cancer screening that normally needs a specialist. Its handheld Smart Scope® CX camera and offline-capable tablet software give an immediate, colour-coded risk result at the point of care. To stay safe and compliant, it follows a strict human-in-the-loop protocol in line with ICMR and WHO guidance: the on-device AI model flags risk, and the images are securely sent to a state-level board of certified experts for remote confirmation. This extends screening into areas that are short of specialists.

Case 3. AI co-pilot for doorstep primary healthcare: CMED Health (Bangladesh)

CMED Health, based in Bangladesh, runs a doorstep primary healthcare model built around the family rather than a single disease. Refined through >100 field iterations, it deploys health workers with limited medical training as community facilitators, guided step by step by a smartphone app during monthly household health checks, at a cost of about US\$1 per person per month. An ambient scribing tool turns spoken conversation into a structured longitudinal record, and a real-time audit tool checks for possible dosing errors before medicines are dispensed, adding a quality check at the last mile.

Case 4. LLM-augmented nurse-led primary healthcare: NurseAI

Rural India carries a disproportionate share of the country's disease burden, yet only a third of its physicians serve there. Nurse-staffed facilities are often the first point of care for rural patients, but nurses have limited clinical decision support. NurseAI, built by The Frontline Knowledge Project with the Liver Foundation in West Bengal,

puts a mobile, LLM-based clinical decision support tool in the hands of frontline nurses. The app guides history-taking through structured, locally adapted questionnaires, listens to the consultation, and generates a prescription with a provisional diagnosis, triage guidance, management advice, and patient instructions. These recommendations are grounded through retrieval-augmented generation in ICMR standard treatment workflows and local drug formularies, and a licensed physician authorizes every prescription before it reaches the patient. The app is designed to comply with India's Digital Personal Data Protection Act and runs on low-bandwidth mobile connections. It is currently deployed across three rural districts in two states. By letting nurses safely manage low-acuity cases at Health and Wellness Centres and rural outpatient clinics, the model frees up scarce physician time for complex cases. In a randomized crossover trial in West Bengal, where the same patient is seen by both nurse+AI and a physician, an early 39-patient pilot found nurse+AI consultations scored higher than local physicians on blinded expert grading of diagnostic reasoning (7.8 vs 5.2) and clinical management (4.6 vs 3.0). Full results from the 672-patient trial, including cost-effectiveness, are expected in late 2026.

Layer 3: Autonomous action

AI makes a clinical decision on its own without needing a human to double-check. Currently, most such applications are restricted to screening, which does not demand high accuracy. It still needs the strictest validation, including testing against specialists, and formal approvals from bodies such as the USFDA or CDSCO. Hence, it is usually limited to tightly defined, well-validated tasks with safeguards. Many of these are still not deployed.

Case 5. Autonomous chest X-ray screening: Qure.ai

Qure.ai uses AI to read chest X-rays. It began with automated screening for tuberculosis, establishing one of the earliest globally recognized clinical use cases where the World

Health Organization recommended AI could be used in place of a human reader. It now runs at scale in resource-limited settings, including more than 200 centres in Nigeria, 250 sites in Ethiopia, and a national roll-out across more than 4,000 public health clinics (Puskesmas) in Indonesia. In India, Goa's public system uses it to process 40 to 50% of public radiology scans, screening for lung nodules, early lung cancer, COPD, and cardiovascular risk. Health Technology Assessments by Indian bodies including the ICMR found it to be both more effective and less costly than traditional methods (a negative incremental cost-effectiveness ratio). Qure.ai is now extending the approach to other applications.

Case 6. Cough-sound screening for respiratory health: Swaasa (Salcit Technologies)

Swaasa, developed by Salcit Technologies, uses AI to analyse cough sounds alongside patient vitals (SpO2 and temperature) to provide a preliminary respiratory health screen. It turns an ordinary mobile phone into a triage tool for low-resource and remote settings. By recording coughs and checking acoustic patterns with symptom data, it flags individuals who may be at risk. This lets frontline workers identify pulmonary issues early, optimizing the use of scarce spirometry and diagnostic equipment. When it flags an abnormal result, it helps route the patient to a primary health centre for a definitive diagnosis. Catching problems early at the community level helps avoid costly hospital admissions later.

Case 7. Symptom-based triage: Klinik Healthcare Solutions

Klinik Healthcare Solutions operates an AI-driven total triage and patient flow management tool at the entry point to primary healthcare. Patients or clinic staff enter symptoms through a digital interface. The system checks reported symptoms against medically validated algorithms, calculates the urgency, and instantly routes the person to the appropriate care setting, such as an e-clinic, self-care advice, or a physical clinic. This structured routing significantly reduces unnecessary clinic visits, balances staff workload, and prevents over-treatment.

Case 8. Voice assistant for diagnosis: Jiva (Atman Labs)

Jiva, an applied research product from Atman Labs, uses voice AI to support the primary healthcare pipeline by moving beyond basic transcription toward clinical reasoning. It can handle patient intake calls, triage individuals based on the symptoms they describe, and safely

navigate them to the appropriate tier of care. For clinicians, it serves as an intelligent reasoning assistant, analyzing complex patient case details to highlight potential clinical risk factors. This acts as a digital safety net against diagnostic errors in primary healthcare. Jiva is an early-stage tool and is continuously undergoing rigorous clinical testing.



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