EXPLICITY HEALTH INTELLIGENCE LAB

# Bridging the Healthcare Access Gap in India

An Evidence-Informed Research Report on Equity, Affordability, Service Delivery, and Health System Transformation


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***Research integrity note:*** *This report draws on publicly available government publications, international health guidance, and selected research studies. It does not claim to present original fieldwork, patient interviews, or a systematic review. Reported statistics retain their reference years. The implementation framework, illustrative scenarios, and proposed performance measures are analytical recommendations, not results from an evaluated programme.*

## Executive Summary


Healthcare access is a practical test of whether a society can convert medical knowledge, public resources, and institutional capacity into better lives. For an individual, access means being able to recognise a health problem, find appropriate assistance, reach a functioning service, receive competent treatment, obtain necessary medicines, and continue care without severe financial disruption. A hospital building, insurance entitlement, or digital health account can support this process, but none independently guarantees that it will be completed.

India's healthcare access challenge therefore extends beyond the number of hospitals or doctors. It concerns the relationship between where people live, what they can afford, how services operate, and whether the health system responds to their circumstances. A household may live near a clinic but be unable to attend during working hours. A patient may receive a prescription but lack money for medicines. An insured person may struggle to find an accessible hospital offering the required service. Someone with a disability may reach a facility yet remain unable to use its examination equipment or understand its instructions.

The World Health Organization's approach to universal health coverage places necessary, quality services and protection from financial hardship within the same objective. This report adopts that combined perspective: expanding utilisation is valuable only when the resulting care is appropriate, safe, accessible, and financially sustainable for the people receiving it.

Recent official releases illustrate both progress and continuing challenges. India's National Health Accounts for 2022-23 reported household out-of-pocket expenditure at 43.4% of total health expenditure. This was below the 64.2% reported for 2013-14, but above the pandemic-period figure of 39.4% for 2021-22. Separately, a July 2026 government update reported that institutional deliveries increased from 88.6% in NFHS-5 to 90.6% in NFHS-6. These indicators measure different dimensions of the system and should not be combined into a single claim that access has either been solved or uniformly deteriorated.

The central argument of this report is that India should organise healthcare access around complete care pathways rather than isolated transactions. A screening encounter should connect to diagnosis. Diagnosis should connect to affordable treatment. A referral should connect to an appropriate receiving facility. Hospital discharge should connect to follow-up near the patient's home. Digital records should support these transitions, while people who cannot use digital services should retain a dependable route to care.

The report proposes a district-based approach that combines reliable primary care, essential medicines and diagnostics, supported health workers, coordinated referrals, patient navigation, and accountable purchasing of additional services. District planning should respond to local geography, population mobility, deprivation, and disease needs. National standards remain valuable, but implementation must recognise the differences between a dense urban settlement, a remote mountain community, and a dispersed tribal region.

Financial protection should address repeated outpatient expenses alongside major hospital events. Workforce policy should examine actual clinical availability, skills, team composition, and retention rather than registration totals alone. Technology should be judged by improvements in treatment completion, waiting time, record availability, and equitable participation rather than downloads or account creation.

The report also recommends a broader definition of performance. Institutions should measure who failed to obtain care, why referrals were not completed, whether medicines remained available, and whether poorer households experienced greater improvement. The proposed reforms require sustained financing and management, but they do not all require expensive new infrastructure. Many begin with making existing services more dependable, understandable, and connected.

## 1. Introduction: Why Healthcare Access Matters

Healthcare access influences far more than clinical outcomes. It affects whether a worker can remain employed, whether a child attends school, whether an older adult can live independently, and whether a household preserves its savings. An untreated condition can alter family responsibilities, reduce income, and create expenses that persist long after the immediate illness. For this reason, healthcare access should be treated as part of social and economic development, rather than as a narrow concern of hospitals and medical departments.

The term “access gap” describes the distance between healthcare that people need and healthcare they can actually obtain. That distance may be physical, financial, informational, social, or institutional. It can also emerge over time. A person may access the first consultation but struggle to complete a diagnostic investigation. Another may receive successful hospital treatment but lack rehabilitation. A third may manage a chronic condition temporarily and then discontinue treatment because refills require repeated travel.

India requires an approach capable of addressing these different situations within one overall framework. Expanding specialist hospitals may improve access to complex procedures, but it does not automatically strengthen routine care in underserved communities. Insurance may protect against some hospital expenses, but people also need affordable consultations, medicines, and investigations outside hospital settings. Digital tools may simplify registration, but they cannot compensate for missing staff, unreliable electricity, or an unavailable diagnostic service.

The access problem should also be distinguished from the demand for healthcare. Low utilisation does not necessarily indicate low need. People may avoid care because they anticipate unaffordable costs, disrespectful treatment, lost wages, or repeated unsuccessful visits. Conversely, high utilisation does not always demonstrate good access. It can reflect unnecessary repeat consultations, fragmented treatment, or the failure to resolve a problem during an earlier encounter.

This report therefore examines healthcare access through the experience of a person moving through the system. It asks whether services are reachable, reliable, comprehensible, affordable, clinically appropriate, and connected over time. This perspective shifts attention from individual programme achievements to the combined performance of institutions that a patient depends on.

The report is intended for policymakers, healthcare administrators, researchers, civil society organisations, and responsible health innovators. Its purpose is to explain the access challenge, identify practical reform priorities, and propose a framework for evaluating whether changes improve the lives of underserved people.

## 2. Research Objectives, Questions, and Methodology

The primary objective is to identify how India can reduce avoidable differences in access to essential healthcare. The report considers financial protection, service availability, quality, continuity, and inclusion as related parts of that objective.

Five research questions guide the analysis:

The report uses a targeted narrative review of publicly accessible sources. Government health accounts and programme materials support descriptions of expenditure and service design. Official survey updates provide selected population-level indicators. WHO publications inform the conceptual treatment of universal coverage, quality, disability inclusion, and health system resilience. Selected research contributes examples of implementation and the limitations of interpreting programme

outcomes.

This is not a systematic review. No exhaustive database search, formal screening flow diagram, or comprehensive risk-of-bias assessment was undertaken. It would therefore be inappropriate to claim that every relevant study has been included or that the report establishes a definitive estimate of the effectiveness of each proposed intervention.

The analysis distinguishes three types of statement. **Descriptive evidence** reports a documented statistic or programme feature. **Analytical interpretation** explains a possible implication while acknowledging alternative explanations. **Policy proposals** identify actions that merit implementation or evaluation. These categories are especially important when discussing digital health, financing, and service integration, where plausible benefits should not be presented as measured results.

Dates and denominators receive particular attention. A report published in 2026 may describe expenditure incurred in 2022-23. A percentage of total health expenditure is different from a percentage of household income. A survey indicator covering institutional deliveries does not establish the quality of every delivery. Similarly, workforce requirements, sanctioned posts, filled positions, and actual attendance are separate measures.

The report does not rank Indian states or estimate a national programme budget. Such exercises would require a more extensive dataset, standardised definitions, and explicit adjustment for population needs. Instead, it develops a practical framework that can guide locally grounded planning, subsequent field research, and more rigorous evaluation.

- Which barriers prevent people from obtaining appropriate healthcare?
- Why can improvements in infrastructure or programme coverage coexist with unmet need?
- How should primary care, hospitals, community services, and digital systems work together?
- Which reforms should receive priority when resources and administrative capacity are limited?
- What evidence would demonstrate that an intervention has improved access equitably?

## 3. Defining Access: From Service Availability to Effective Care

A useful access framework must capture the full sequence between recognising a health need and receiving a meaningful benefit. This report uses seven dimensions: availability, geographic accessibility, affordability, acceptability, accommodation, quality, and continuity.

**Availability** concerns whether the required service exists with appropriate staff, medicines, equipment, and operating capacity. **Geographic accessibility** concerns the time, cost, and difficulty of reaching it. **Affordability** includes direct payments and the wider economic consequences of seeking care. **Acceptability** concerns whether people feel respected and whether services accommodate language, privacy, cultural expectations, and individual preferences.

**Accommodation** refers to the way services are organised. Opening hours, appointment processes, waiting arrangements, documentation requirements, and communication channels can determine whether an otherwise available service is usable. **Quality** concerns whether care is safe and appropriate. **Continuity** concerns the connection between encounters, providers, and stages of treatment.

These dimensions interact. A nearby clinic that frequently lacks medicines may create financial barriers by directing patients to private pharmacies. An affordable hospital with inaccessible registration procedures may remain difficult to use. A teleconsultation may reduce travel while introducing new problems if the patient cannot obtain the prescribed investigation locally.

An important distinction is between contact coverage and effective coverage. Contact coverage describes whether someone used a service. Effective coverage asks whether the interaction delivered the required standard of care and contributed to the intended health benefit. WHO’s quality framework emphasises effectiveness, safety, responsiveness to people, timeliness, equity, integration, and efficiency.

For district planning, these ideas should translate into observable questions. Did the patient obtain an appointment? Was the relevant professional available? Was the recommended medicine dispensed? Did the receiving hospital accept the referral? Did the patient understand the follow-up plan? Each answer identifies a different point at which access may fail.

This report treats the care pathway as a chain whose performance depends on its connections. Strengthening one link can help, but a major weakness elsewhere may prevent the patient from receiving the expected benefit. The practical implication is that reform should identify and repair the points where people leave the pathway, rather than counting only those who remain visible within it.

## 4. What Selected Evidence Shows, and What It Does Not

| Indicator | Reported value | Reference period | Interpretation |
|---|---|---|---|
| Household out-of-pocket expenditure as a share of total health expenditure | 43.4% | 2022-23 | Household payments remained an important financing source |
| Government health expenditure as a share of total health expenditure | 43.7% | 2022-23 | Measures the public financing share, not service quality |
| Government health expenditure as a share of GDP | 1.43%; 1.48%* | 2022-23 | GDP-series choice affects the reported ratio |
| Institutional deliveries | 90.6% | NFHS-6, 2023-24 | Indicates service use, not complete maternal-care quality |
| Mothers receiving at least four antenatal visits | 65.2% | NFHS-6, 2023-24 | Describes contact frequency, not every component of care |

A concise evidence baseline helps establish the scale and character of the challenge without creating false precision.

The expenditure figures come from the government’s release of National Health Accounts 2022-23; the maternal-care indicators come from its NFHS-6 update.

These measures should be interpreted separately before drawing connections. A change in the public share of expenditure may reflect changes in government spending, private spending, or both. It does not directly show whether the poorest households became better protected. Likewise, increased institutional delivery may coexist with gaps in antenatal continuity, referral readiness, respectful treatment, or postnatal follow-up.

The table also illustrates why date labelling matters. The expenditure and survey reference periods are different. Combining them without qualification could suggest a contemporaneous relationship that has not been established. The figures provide context for analysis; they do not constitute a causal evaluation of a particular reform.

Administrative and population data should therefore be used together. Facility records reveal what happened among people who reached services. Household research can identify people who needed care but did not attend. Patient interviews can explain barriers that neither expenditure accounts nor service totals capture adequately.

A stronger evidence system would connect these perspectives while protecting privacy. It would report service availability, treatment completion, household costs, and unequal outcomes using consistent definitions. This would allow decision-makers to distinguish expansion that improves meaningful access from expansion that mainly increases recorded activity.

## 5. Rural and Remote Access: Planning Beyond Distance

Rural healthcare access should not be reduced to the number of kilometres between a village and a facility. Actual access depends on road quality, public transport, seasonal conditions, travel safety, service hours, and the likelihood that the required care will be available on arrival. A short journey can still be difficult when transport is irregular or when a patient must travel with an accompanying family member.

A further issue is uncertainty. If people expect that a local facility may lack staff, medicines, or diagnostic capacity, they may bypass it and travel directly to a more distant institution. That decision can be rational from the patient’s perspective even

when it increases pressure on referral hospitals. Building trust therefore requires dependable service delivery, not simply encouraging people to use the nearest centre.

Reporting on Health Dynamics of India 2022-23 identified 4,413 specialists in rural community health centres against a requirement of 21,964, a shortfall of 79.9%. This is a shortfall against the specified requirement for that facility category, not a claim that 79.9% of all Indian doctor positions were vacant.

The planning implication is that facilities should be assessed as functioning teams. A specialist's presence may have limited value without nursing support, diagnostics, equipment, or a safe referral arrangement. Conversely, competent local teams can manage many needs if they have clear protocols, adequate supplies, and dependable access to higher-level advice.

This report proposes travel-time mapping as part of rural service planning. Districts should estimate the time required to reach relevant care under ordinary and adverse conditions. Separate maps may be needed for routine consultations, emergency obstetric care, trauma services, and diagnostic testing. A single map of facility locations cannot answer all these questions.

Remote areas may require a combination of fixed clinics, scheduled outreach, assisted teleconsultation, transport support, and strategically located referral facilities. These approaches should be coordinated rather than introduced as unrelated projects. Outreach teams should know where to refer patients; receiving facilities should know when outreach occurs.

The objective should be predictable access across the year. Rural residents should be able to understand what their local facility provides, when higher-level services are available, and how transport and referrals will operate when urgent needs arise.

## 6. Urban Inequality and the Limits of Proximity

Urban residence can create the appearance of good access because hospitals, laboratories, pharmacies, and private clinics are physically concentrated. Yet proximity does not guarantee affordability, suitable opening hours, or an understandable route through the system. A person living near a large hospital may still be unable to attend because of work schedules, registration delays, or expected expenses.

Urban planning should therefore examine neighbourhood-level differences. Informal settlements, temporary worksites, resettlement areas, and peripheral residential colonies may have distinct needs that citywide averages conceal. Population mobility can also complicate planning. A service catchment defined using permanent residents may underestimate the needs of workers who live temporarily near factories, markets, or construction sites.

For a daily-wage worker, the cost of attending a clinic includes more than transport and consultation fees. Waiting for several hours may mean losing income. A follow-up visit for a result or prescription correction can create a second financial loss. Services designed around standard office hours may therefore remain poorly aligned with the lives of people they are intended to serve.

This report proposes urban access assessments that combine location data with service schedules, patient costs, waiting times, and population mobility. Such assessments should distinguish between the presence of a provider and the availability of affordable, appropriate care. They should also include people who do not appear in routine facility records.

Potential responses include evening clinics, appointment windows that remain flexible for walk-in patients, outreach linked to permanent services, and help desks for navigation. None should be adopted simply because it sounds convenient. Local testing should establish whether the intervention reaches people who previously delayed or avoided care.

Urban referral pathways also require attention. Patients may move between small private clinics, diagnostic providers, and public hospitals without anyone coordinating the overall plan. A local navigation service could reduce unnecessary movement by providing verified information on services, costs, and referral requirements.

The wider lesson is that urban healthcare planning should move from counting institutions to examining the practical conditions under which different groups can use them. Dense infrastructure can coexist with substantial exclusion.

## 7. Affordability: The Full Cost of Seeking Care

Healthcare affordability should be evaluated from the household's perspective. The consultation fee is only one component. Medicines, tests, transport, accommodation, food during travel, childcare, and lost income can all influence whether a person starts or completes treatment. For chronic conditions, relatively small payments may become difficult because they recur.

Consider an illustrative patient who receives a free consultation but must purchase medicines elsewhere and return on another day for a test. The consultation is financially accessible in a narrow sense, yet the complete episode may remain unaffordable. The same problem arises when hospital treatment is covered but accompanying relatives must pay for travel and accommodation.

The timing of expenditure also matters. A household with limited cash may struggle to make an immediate payment even if its annual income appears adequate. Reimbursement at a later date may not solve this liquidity problem. Families may borrow, postpone treatment, or choose an incomplete option because payment is required before assistance becomes available.

This report recommends distinguishing three affordability questions. First, what is the total cost of a care episode? Second, what share must the household pay directly and at what point? Third, what effect does the payment have on essential consumption, savings, debt, and future treatment decisions? A single average expenditure figure cannot answer all three.

Low spending should not automatically be interpreted as financial protection. It may indicate that people received affordable care, but it may also indicate that they did not obtain needed care. Financial monitoring should therefore include unmet need and treatment abandonment alongside spending.

Practical reforms should begin with dependable access to essential medicines and diagnostics, transparent information about charges, and a mechanism for resolving unexpected payment demands. Assistance with transport may be important where geography adds substantial costs. Follow-up arrangements should also minimise avoidable repeat journeys.

The policy objective is not simply to reduce every payment in isolation. It is to ensure that necessary care does not force households into harmful trade-offs. Affordability should be assessed across the full pathway, including what happens after the first consultation and after discharge.

## 8. Health Financing and the Boundaries of Insurance

Health financing determines how resources are collected, pooled, allocated, and paid to providers. Each stage influences access. A system can raise substantial resources yet distribute them unevenly. It can offer insurance while maintaining weak local service availability. It can also purchase a high volume of care without ensuring that the care is necessary or effective.

PM-JAY's stated design provides eligible families with up to ■5 lakh annually for covered secondary and tertiary hospitalisation through participating facilities. This is an important hospital-care entitlement, but it should not be described as an unrestricted guarantee covering every outpatient expense or all healthcare needs.

Insurance protection depends on implementation. Patients need to know their eligibility, identify participating providers, understand the available benefit, and receive assistance when access is disputed. A nominal entitlement offers limited practical protection if these steps remain difficult.

This report proposes that financing reforms assess population coverage, service coverage, and financial protection separately. Population coverage concerns who qualifies. Service coverage concerns what is included and where it can be obtained. Financial protection concerns the expenses people still face and the consequences of those expenses.

Provider payment also deserves attention. Payment per service can encourage additional activity, including activity of uncertain value. Fixed payments can create incentives to restrict services if quality safeguards are weak. Hospital package payments may simplify administration but require monitoring for inappropriate admission, incomplete treatment, or patient selection. No payment mechanism eliminates the need for oversight.

A balanced financing strategy should support a reliable primary-care foundation while protecting people against major hospital costs. Budget allocation should consider population need, remoteness, deprivation, and disease burden. Identical per-capita allocations may be insufficient where delivering the same service costs more.

The report also recommends evaluating actual expenditure rather than announcements alone. Allocated funds must translate into timely procurement, staffing, maintenance, and services. Delayed fund release or slow payments to providers can undermine access even when the overall budget appears adequate.

Ultimately, financing should be judged by whether it enables appropriate care and reduces financial distress. Expenditure growth is an input; equitable health improvement is the intended outcome.

## 9. Workforce Availability, Distribution, and Retention

A healthcare workforce is more than a count of registered professionals. Access depends on where workers practise, their clinical roles, the time they devote to patient care, their skills, and the support available to them. National totals cannot establish whether a particular district has an adequate emergency team or whether a local clinic can operate consistently.

A March 2026 government release reported registered allopathic and AYUSH practitioner totals and an estimated combined doctor-population ratio based on an assumption of 80% availability. Such a ratio should not be treated as a direct measure of full-time, locally available allopathic or specialist clinical capacity. Its components and assumptions matter.

Workforce planning should examine skill mix. Doctors, nurses, pharmacists, laboratory professionals, rehabilitation staff, counsellors, community workers, and managers perform complementary functions. A facility with adequate doctors but insufficient nursing or laboratory support may still experience delays and safety problems.

Recruitment alone does not guarantee retention. Working conditions influence whether staff remain in underserved locations. Housing, safety, supervision, professional development, manageable workload, reliable supplies, and transparent career pathways should be considered together. Financial incentives can help, but they may have limited value when the wider working environment remains difficult.

This report proposes district workforce plans based on service responsibilities and actual workload. These plans should distinguish approved posts, filled posts, attendance, turnover, and vacant periods. They should also identify services that cannot operate safely because a complementary role is missing.

Task sharing may improve access when responsibilities match training and demonstrated competence. It should be accompanied by supervision, referral support, and clear limits. Assigning additional duties without time, equipment, or appropriate preparation can shift risk onto frontline workers and patients.

Training should address communication and coordination as well as clinical knowledge. Patients need understandable explanations, and referral teams need concise information. Administrative staff also influence access through registration, scheduling, and benefit navigation.

A sustainable workforce strategy should aim for dependable teams with supported professional judgement. The measure of success is whether people can obtain timely, competent care, not merely whether recruitment targets have been achieved.

## 10. Primary Healthcare as the Organising Foundation

Primary healthcare should be the dependable first point of contact for common health needs and the coordinating base for continuing care. Its value lies in accessibility, familiarity with local populations, prevention, early treatment, and continuity. It should also help people navigate specialist and hospital services when these become necessary.

India’s comprehensive primary-care approach through Ayushman Arogya Mandirs includes community-based teams, medicines and diagnostics, health promotion, and links to referral care. The National Health Systems Resource Centre describes continuity, telehealth, and two-way referral as components of this approach. These are programme design features; local functionality still requires assessment.

A strong local service should provide predictable opening hours and a clearly communicated package of care. Patients should know which needs can be addressed locally, which require referral, and how follow-up will occur. This clarity reduces uncertainty and helps prevent unnecessary movement between providers.

Primary care should not be evaluated only through screening totals or attendance. A centre may identify many people with possible disease but fail to confirm diagnoses or initiate treatment. Another may provide repeat consultations without improving continuity. Performance should therefore include completion of diagnostic pathways, availability of medicines, follow-up, and appropriate escalation.

This report proposes that each primary-care team maintain a manageable understanding of its catchment population. That does not require collecting every possible detail about every resident. It requires enough information to plan outreach, recognise vulnerable households, support ongoing treatment, and identify people who repeatedly miss necessary care.

The team should have a defined relationship with referral facilities. Specialist advice should help local clinicians manage appropriate cases safely, and hospital discharge information should return to the local team when the patient agrees and sharing is appropriate. This supports continuity without requiring every follow-up visit to occur at a distant hospital.

Primary care also needs sufficient administrative support. When clinicians spend excessive time on duplicate reporting or avoidable paperwork, time for patient care falls. Process improvement can therefore contribute to access alongside additional investment.

The central priority is reliability. People are more likely to use local services when they can expect competent care, available medicines, respectful communication, and an understandable next step.

## 11. Medicines, Diagnostics, and the Completion of Treatment

A consultation becomes useful when the patient can act on its recommendations. Medicines and diagnostic services are therefore central components of access, rather than secondary additions. A prescription that cannot be filled or a test that cannot be completed may leave the underlying health need unresolved.

Medicine access involves selection, procurement, storage, distribution, dispensing, and counselling. Failure at any stage can interrupt treatment. Facilities need information about stock levels, expected demand, expiry dates, and replenishment times. Procurement should address quality and continuity as well as unit price.

This report recommends measuring medicine availability at the point of care. Central warehouse stock does not necessarily indicate that a patient can obtain treatment from a local facility. A useful operational measure is the number of days that a defined tracer medicine is unavailable at a particular service location.

Diagnostics require similar attention. Equipment ownership is insufficient when maintenance, reagents, trained operators, or quality assurance are missing. Sample collection may be available locally while testing occurs elsewhere; in such arrangements, transport reliability and result turnaround become essential parts of access.

Patients also need help understanding where and when results will be available. Requiring a separate journey simply to collect a result can create avoidable costs. Where appropriate, results should be communicated through an agreed channel and reviewed by a responsible clinician, with an in-person option retained.

Affordability should not lead to indiscriminate testing. Unnecessary investigations can increase costs and create further procedures without improving care. Diagnostic access should mean access to appropriate testing linked to clinical decisions.

Medicine counselling is equally important. Patients should understand the purpose of treatment, how to take it, and how to seek advice when problems arise. Written instructions alone may be insufficient for people with limited literacy, visual impairment, or unfamiliarity with the language used.

A practical district strategy would connect prescribing patterns, stock management, laboratory capacity, and referral planning. The intended result is a treatment pathway that can be completed with fewer avoidable interruptions, rather than a

sequence of recommendations that transfers the burden of coordination to the patient.

## 12. Referral Systems and Emergency Readiness

Referral is a transfer of clinical responsibility that should connect one level of care to another. In practice, it can become little more than advice to visit a larger institution. The patient may then face uncertainty about where to go, whether the facility offers the required service, and what information to carry.

A functional referral should communicate the reason for referral, relevant findings, urgency, treatment already provided, and the expected next step. The receiving service should have a process for acknowledging and acting on that information. After assessment, the patient's ongoing care should be coordinated with the original provider where appropriate.

Emergency pathways require additional preparation. Transport alone cannot guarantee effective emergency access if the destination lacks the required team or capacity. District planning should therefore link transport arrangements with verified service readiness and escalation procedures.

This report proposes a referral directory that is maintained as an operational resource rather than a static list. It should identify what participating facilities can currently provide, when key services operate, and whom clinicians can contact for urgent coordination. Its usefulness depends on regular verification.

Referral completion should be measured carefully. Issuing a referral is an activity; receiving the required care is an outcome. Districts should examine the proportion of referred patients who arrive, the time taken, and the reasons for non-completion. For urgent cases, clinical review should determine whether delays were avoidable.

The process should also account for patient circumstances. Transport costs, the need for an accompanying person, childcare responsibilities, and inability to navigate a hospital can all prevent completion. Patient navigation should be targeted where these barriers are most consequential.

Back-referral matters as well. Patients discharged from hospital may need medication review, wound care, rehabilitation, monitoring, or social support. Without a clear plan, the hospital episode can end while the patient's needs continue.

A connected referral system reduces the administrative and informational work placed on families. It allows institutions to share responsibility for the pathway instead of expecting patients to discover and coordinate every step themselves.

## 13. Gender, Maternal Health, and Reproductive Autonomy

Healthcare access is shaped by the ability to make decisions, control money, travel safely, and receive confidential care. Gender-sensitive planning must therefore examine more than whether a service is technically available. It should consider who can use it independently, whose concerns are taken seriously, and whose treatment is postponed.

Maternal-care indicators illustrate the importance of following the complete pathway. Antenatal contact, skilled attendance during birth, emergency referral, and postnatal follow-up represent different needs. An improvement in one stage does not establish that the others are adequate. Services should also consider the patient's experience, including communication, privacy, and participation in decisions.

This report proposes maternal-care reviews that assess readiness for complications alongside routine service use. Districts should examine how patients move from antenatal care to delivery facilities, whether transport arrangements are understood, and whether discharge instructions support continuing care. Reviews should identify system failures without automatically assigning blame to families or individual frontline workers.

Women's healthcare should not be limited to pregnancy and childbirth. Primary care should be prepared to address chronic illness, mental health, reproductive concerns, and other needs across the life course. Service hours, availability of private consultation space, and options for discussing sensitive concerns can influence whether care is sought.

Reproductive-health communication should provide understandable information and support informed choices. Programme targets should not override individual preferences. Confidentiality is especially important when discussing sexual health,

reproductive decisions, or experiences of violence.

Health systems should also examine whether caregiving responsibilities prevent people from attending their own appointments. Flexible scheduling, coordinated visits, and appropriate community support may reduce these barriers. However, such measures should be evaluated locally rather than assumed to work equally well everywhere.

The report recommends involving women and other affected groups in service design through confidential, accessible consultation processes. A public meeting alone may not reveal concerns that people are uncomfortable expressing in front of family or community members.

Gender-responsive access ultimately requires services that recognise the patient as a decision-maker. Respect, safety, and privacy should be integrated into routine delivery rather than treated as optional improvements after coverage expands.

## 14. Children, Adolescents, and Care Across the Life Course

Healthcare access changes as people grow. Infants depend on caregivers to recognise illness and obtain care. School-age children may need developmental, nutritional, sensory, or mental-health support. Adolescents require services that respect privacy and communicate without judgement. A single service model cannot address all these needs adequately.

For children, continuity between community services, primary care, schools, and referral facilities is especially important. Identifying a potential problem is useful only when families receive a clear explanation and can complete the next step. Screening programmes should therefore track whether children receive confirmatory assessment and appropriate support.

This report proposes that child-health planning include caregivers' practical constraints. Appointment systems should consider travel, work commitments, and the possibility that families are caring for several children. Information should be understandable and specific about where to go, what to bring, and whether expenses are expected.

Adolescent access requires a different emphasis. Young people may avoid services if they fear embarrassment, dismissal, or unwanted disclosure. Providers should explain confidentiality and its limits clearly, communicate respectfully, and create opportunities for private discussion consistent with applicable requirements and clinical responsibilities.

School-based initiatives can create useful contact points, but they should not become the only route to support. Children and adolescents who are out of school, frequently absent, or moving between locations may otherwise remain excluded. Community-based pathways should complement institutional ones.

The transition to adult services also deserves attention. Young people with long-term conditions should not lose continuity because responsibility shifts between paediatric and adult teams. A planned transition should include a treatment summary, follow-up arrangements, and an explanation suited to the young person's level of understanding.

The broader principle is that access should be designed around changing needs over time. Preventive care, early support, treatment, rehabilitation, and mental health should connect rather than appear as separate programmes.

Evaluation should examine completion and experience, not only attendance. A child recorded as screened or an adolescent recorded as counselled has not necessarily received the assistance required to improve daily functioning or wellbeing.

## 15. Tribal Communities, Social Exclusion, and Migrant Populations

Some populations encounter several barriers simultaneously. Geography may combine with language differences, insecure employment, discrimination, limited documentation, or previous negative experiences. Interventions that address only one barrier may therefore produce less improvement than expected.

For tribal communities, planning should begin with local consultation and an understanding of settlement patterns, travel routes, languages, and seasonal movement. Standard assumptions about distance or service schedules may be inappropriate. Community participation should influence the design of services, rather than merely support the delivery of a predetermined programme.

Language support is a practical component of care. Patients need to describe symptoms, understand options, and receive instructions. Where interpretation is required, arrangements should protect confidentiality and avoid relying automatically on family members for sensitive discussions.

The report also recommends assessing whether social discrimination affects registration, waiting, communication, examination, or referral. Formal availability does not ensure equal treatment. Confidential patient feedback and independent review can identify problems that routine facility statistics miss.

Migrant populations require continuity across locations. A worker may obtain care in one district, move for employment, and then struggle to explain previous treatment elsewhere. A portable, understandable treatment summary can help, but portability also depends on receiving services recognising the information and offering an appropriate next step.

Documentation should be examined as a potential barrier. Service teams need clear procedures for people whose documents are incomplete, unavailable, or linked to another location. Staff should not have to improvise under pressure, and patients should receive accurate information about the requirements that apply to a particular service.

This report proposes outreach partnerships with trusted community organisations, while maintaining clear responsibility within the health system. Community organisations can assist with communication and navigation, but should not be expected to compensate indefinitely for missing public services.

The objective is not to create permanently separate standards of care for marginalised groups. It is to adapt delivery sufficiently for people to obtain equivalent quality and benefit. Equity may require additional support because circumstances differ, even when the underlying entitlement to appropriate care is shared.

## 16. Disability Inclusion, Older Adults, and Rehabilitation

Disability-inclusive healthcare must address physical access, communication, clinical practices, and administrative procedures. A ramp at the entrance is useful but insufficient if examination rooms are inaccessible, staff communicate only through an accompanying person, or information cannot be understood.

WHO identifies inaccessible facilities and information, discriminatory practices, and limitations in workforce knowledge among the barriers contributing to health inequities for persons with disabilities. These are general mechanisms relevant to service design; their local extent should be measured rather than assumed.

This report recommends accessibility audits conducted with people who have different disabilities. Audits should test the entire journey: booking, arrival, registration, waiting, examination, diagnostics, payment, medicine collection, and follow-up. A facility may pass a basic building inspection while still presenting major practical barriers.

Older adults may face several simultaneous challenges, including mobility limitations, multiple conditions, complex medication schedules, and dependence on caregivers. Organising separate visits for each condition can increase the burden. Coordinated assessment and follow-up should therefore be considered where clinically appropriate.

The government approved expansion of PM-JAY coverage to people aged 70 and above irrespective of income, with specific provisions governing family coverage and additional benefits for those already in covered families. This expansion addresses hospital financial protection; it does not independently provide every community, rehabilitation, or long-term support service an older person may require.

Rehabilitation should be incorporated into access planning rather than treated only as an optional service after acute treatment. The ability to move, communicate, work, and participate in daily life may depend on support that continues after hospital discharge.

Caregivers also need understandable information and realistic plans. However, services should communicate directly with the patient wherever possible and avoid assuming that disability or age removes decision-making capacity.

The proposed approach combines accessible facilities, supported communication, coordinated appointments, rehabilitation pathways, and options for community or home-based follow-up when appropriate. Evaluation should include independence,

participation, and patient experience alongside clinical indicators.

## 17. Chronic Disease: Access as a Continuing Relationship

Chronic disease exposes the limitations of a health system organised around isolated visits. Conditions requiring long-term management depend on repeated access to assessment, medicines, monitoring, and advice. An initial diagnosis is only the beginning of the pathway.

The India Hypertension Control Initiative offers a relevant implementation example. A study using programme records from Punjab and Maharashtra examined treatment outcomes among patients managed through standardised protocols. Its findings were encouraging among patients retained in care, but that qualification matters: outcomes among people who continued treatment should not be interpreted as outcomes for everyone originally identified or enrolled.

The analytical lesson is that treatment quality and retention must be measured together. A programme can achieve good results among returning patients while still losing many people before follow-up. Improving access requires understanding why those people did not return.

Possible barriers include medicine costs, travel, unclear instructions, inconvenient schedules, competing responsibilities, and the belief that treatment is unnecessary when symptoms are absent. Local research should determine which barriers are most important rather than assuming that non-attendance reflects indifference.

This report proposes chronic-care pathways that minimise unnecessary friction. Where appropriate, appointments can be coordinated, refill processes simplified, and follow-up provided closer to home. Patients should know whom to contact when they experience a problem or cannot attend.

Records should support continuity across providers. A concise treatment summary can help clinicians understand the current plan and avoid unnecessary repetition. Nevertheless, digital availability should not replace careful clinical review or patient discussion.

Performance measurement should distinguish people screened, diagnoses confirmed, treatment initiated, patients retained, and relevant outcomes achieved. Each denominator answers a different question. Reporting only the most favourable stage can exaggerate success.

Chronic-care reform should also recognise multimorbidity. People do not experience their conditions as separate administrative programmes. A patient-centred service should coordinate treatment and consider the combined burden of appointments, medicines, costs, and daily responsibilities.

The objective is a stable relationship in which the patient can sustain appropriate care over time.

## 18. Mental Healthcare and the Problem of Unmet Need

Mental-health access requires attention to service availability, confidentiality, stigma, affordability, and continuity. People may struggle to recognise when professional support could help, while others may understand their needs but be unable to find acceptable services.

The National Mental Health Survey 2015-16 documented substantial treatment gaps across disorders. It provides an important historical baseline, but its estimates should not be presented as a direct measurement of the situation in 2026. Changes in services, awareness, and population circumstances require updated assessment.

This report proposes integrating appropriate mental-health support into primary care while maintaining access to specialist assessment. Integration should involve training, supervision, referral arrangements, and adequate consultation time. Simply adding mental-health screening questions without a response pathway can identify needs that the service remains unable to address.

Privacy should be built into delivery. Patients may avoid discussing sensitive concerns if conversations can be overheard or if they fear that information will be shared unnecessarily. Telephone and digital support also require careful consideration of

shared devices and the patient's ability to speak privately.

Mental-health services should connect with broader social support where relevant. Financial stress, insecure housing, caregiving demands, and workplace conditions may affect both wellbeing and treatment continuity. Clinical care cannot independently resolve these circumstances, but coordination can make support more practical.

The report recommends measuring more than counselling contacts. Useful outcomes may include timely access, continuity, patient-reported functioning, satisfaction with communication, and completion of appropriate referrals. Measurement should avoid imposing excessive reporting burdens on clinicians and patients.

Community awareness activities should be accurate and avoid promising that every difficulty can be resolved through a brief intervention. They should explain available services and the process for seeking help.

A stronger mental-health access model would combine early support, competent assessment, continuing treatment where needed, and clear escalation arrangements. It would also recognise that respectful communication and patient choice are essential to engagement, rather than optional features added after services expand.

## 19. Quality, Respect, and Trust in Healthcare

People seek healthcare to obtain benefit, not simply to complete an encounter. Expanding access to low-quality services may increase recorded utilisation without improving health. Quality must therefore be treated as part of access itself.

WHO describes quality improvement as requiring attention to the health workforce, governance, financing, information, medicines, technology, and service environments. This supports a system-wide view: poor quality cannot always be attributed to the behaviour of an individual clinician when necessary resources or organisational support are absent.

This report proposes combining clinical quality review with patient-experience assessment. Clinical review asks whether care followed appropriate standards and whether avoidable harm occurred. Patient experience examines communication, privacy, respect, waiting, and whether instructions were understandable. Both are necessary, and neither should substitute for the other.

Trust develops through repeated experience. A facility that communicates clearly and fulfils its stated service commitments is more likely to become a dependable point of care. Conversely, unclear charges, unexplained delays, unavailable medicines, or dismissive communication can discourage future attendance.

Complaints should be treated as information for improvement while preserving fair procedures for staff. Patients need accessible channels to raise concerns, and institutions need a process for investigating and responding. Collecting complaints without providing feedback can deepen mistrust.

Quality improvement should focus on manageable problems. A facility might begin by reducing lost test results, improving discharge instructions, or ensuring that urgent patients are recognised promptly. Small changes can be valuable when they address a recurring failure and are monitored over time.

The report also recommends distinguishing appropriate variation from unsafe inconsistency. Clinical judgement should respond to individual needs, but basic safety and communication processes should be reliable. Standardisation is most useful when it reduces avoidable omissions while allowing justified exceptions.

The ultimate measure of quality is whether services provide appropriate benefit with acceptable risk and respectful treatment. Infrastructure, accreditation, and documentation can support that aim, but they should not be mistaken for direct proof that every patient receives good care.

## 20. Digital Health: Useful Infrastructure, Conditional Benefits

Digital health can improve access by reducing administrative work, supporting record availability, connecting providers, and simplifying selected follow-up activities. Its benefits depend on whether it fits the realities of patients and health workers.

India’s eSanjeevani service includes assisted provider-to-provider telemedicine and direct patient-to-provider consultation models. The distinction matters because assisted access can support people who need help with technology or who benefit from having a local health worker involved.

Telemedicine should be integrated into a broader pathway. A remote consultation is useful when the patient can obtain any required examination, investigation, medicine, or in-person referral. Without these connections, the consultation may transfer coordination work to the patient rather than resolve the access problem.

This report proposes a practical test for digital interventions: which specific barrier does the tool remove, for whom, and at what cost? A registration system may reduce queues. A reminder service may support follow-up. A shared record may prevent information loss. These are distinct functions and require different evaluation measures.

Digital exclusion can arise from limited connectivity, shared devices, unfamiliar language, low literacy, accessibility barriers, or lack of confidence. A person may own a phone without being able to use a health application independently. Service design should therefore include assisted and non-digital options.

Health workers’ experience also matters. A poorly designed system can increase duplicate entry, interrupt consultations, and create additional administrative demands. Procurement should include observation of real clinical workflows and testing with the staff expected to use the system.

The report recommends measuring task completion rather than registration alone. Relevant outcomes include reduced waiting, fewer lost records, successful follow-up, referral completion, and patient understanding. Results should be disaggregated to identify whether benefits are concentrated among already advantaged users.

Digital health should make the care pathway easier to complete. Its role is strongest when it supports a functioning service model and remains usable during connectivity problems or other disruptions.

## 21. Health Records, Consent, Privacy, and Responsible AI

Health information can improve continuity, but it also requires careful stewardship. Patients should be able to understand why information is collected, how it will be used, and who may access it. Trust can be damaged when systems gather more data than necessary or make participation difficult to decline.

The health data policy hosted by ABDM sets out principles concerning consent, data minimisation, and voluntary participation. It also states that lack of a health ID should not by itself result in denial of healthcare. These are relevant design principles; organisations must separately verify the current legal and technical requirements applicable to their operations.

This report proposes collecting the minimum information required for a defined purpose. A referral service does not automatically need an unrestricted lifetime record. An appointment reminder does not necessarily require detailed diagnostic information. Limiting data collection can reduce exposure while making workflows simpler.

Consent should be understandable in the circumstances in which it is requested. A long notice presented during illness or distress may not support meaningful choice. Assisted explanations, clear purposes, and appropriate alternatives are more useful than treating a recorded click as proof of comprehension.

AI should be evaluated according to its intended function and risk. Administrative assistance, translation, documentation support, and clinical decision support raise different questions. Any use that may influence clinical decisions requires appropriate validation, oversight, and a route for correcting errors.

The report recommends testing across languages, settings, and relevant patient groups. Good average performance can conceal poor performance for a smaller population. Systems should also communicate uncertainty and avoid presenting generated content as established clinical fact.

Automated tools should not create barriers to human review. A patient should have a practical way to challenge an administrative decision or obtain assistance when a system fails. Staff should understand when to override or escalate a

problematic output.

Responsible digital infrastructure combines useful information exchange with proportionate safeguards. Privacy, accessibility, and clinical accountability should be designed into the service from the beginning, because repairing failures after adoption can be difficult and costly.

## 22. Governance, Accountability, and Local Management

Healthcare access depends on decisions made at multiple levels. National policies establish broad objectives and standards. State institutions shape financing and service organisation. District and facility teams translate these arrangements into daily practice. Weakness at any level can prevent resources from reaching patients effectively.

This report proposes governance arrangements with clear responsibility for each stage of the care pathway. If a patient cannot complete a referral because transport, scheduling, and destination readiness are disconnected, the problem should have an identifiable owner rather than being passed between departments.

District management requires usable information and enough authority to act. A dashboard showing stock-outs is of limited value if local teams cannot request redistribution or obtain a timely response. Monitoring should therefore be linked to escalation procedures, budgets, and corrective action.

Accountability should include communities, but participation must be meaningful. Meetings should provide understandable information, allow questions, and record actions. Participation should not depend exclusively on confidence, literacy, or social status. Separate consultation methods may be needed to hear from people who are less comfortable speaking publicly.

The report recommends protecting learning processes from excessive blame. Staff may conceal problems when every adverse indicator triggers punishment without examining context. At the same time, serious misconduct requires appropriate investigation. Governance should distinguish errors, resource constraints, system failures, and deliberate wrongdoing.

Transparency should focus on information people can use. Facility hours, available services, charges, complaint channels, and expected referral procedures are often more immediately helpful than large volumes of administrative data.

Public reporting should also be careful about interpretation. Comparing facilities without considering case mix, remoteness, or resource differences can create misleading rankings. Measures should support improvement and fair assessment rather than encourage institutions to avoid complex patients.

The objective is a management system that notices access failures, assigns responsibility, and verifies whether corrective action worked. Accountability becomes meaningful when it changes the patient’s experience, not merely when reports are produced.

## 23. Public and Private Providers: Coordination with Safeguards

A practical access strategy must consider the providers people actually use. Public institutions, private hospitals, smaller clinics, diagnostic centres, pharmacies, charitable organisations, and community services may all contribute to a patient’s pathway. Fragmentation between them can create duplication and gaps.

The report proposes defining partnership objectives before selecting contractual arrangements. A district may need additional diagnostic capacity, specialist sessions, transport, or rehabilitation support. Each need requires a specific service standard and payment structure. A broad partnership announcement does not establish how access will improve.

Contracts should specify eligible services, patient charges, reporting requirements, referral responsibilities, quality expectations, and complaint procedures. They should also explain what happens when a provider withdraws or fails to deliver. Continuity should not depend on informal goodwill.

Purchasing decisions require attention to incentives. Providers may have reasons to favour certain procedures, locations, or patient groups. Monitoring should therefore examine service mix, patient selection, outcomes, and unexpected charges.

Oversight should be proportionate, but it cannot be absent.

The report recommends evaluating whether a partnership adds capacity where unmet need exists. Subsidising services in already well-served locations may increase utilisation without reducing geographic inequity. Contracts intended to improve access should demonstrate how underserved populations will reach and benefit from the service.

Smaller providers may need support to meet reporting and quality requirements. However, simplified administration should not weaken essential safety standards. Assistance can include standard forms, training, and clear communication channels.

Public capacity should remain an important consideration. Purchasing external services may solve an immediate gap, but planners should assess whether long-term dependence would weaken core public functions or create unstable costs.

A mixed-provider approach can be useful when responsibilities are explicit and performance is verified. The relevant question is whether the arrangement improves appropriate care and financial protection for patients, rather than whether one ownership model is assumed to be inherently sufficient.

## 24. Social Conditions, Prevention, and Climate Resilience

Healthcare services operate within wider social conditions. Income, housing, education, employment, transport, food security, and environmental exposure influence both health needs and the ability to seek care. WHO’s social-determinants framework emphasises these conditions and the distribution of power and resources that shapes them.

This report treats these factors as part of access planning without assuming that health departments can resolve them alone. A clinic can provide treatment, but repeated exposure to unsafe conditions may undermine recovery. A referral may be clinically appropriate, yet unreliable transport can prevent completion.

District health planning should therefore identify a small number of cross-sector problems that materially affect care. Examples include transport barriers around referral facilities, water and sanitation needs at health institutions, and work schedules that make routine services difficult to attend. Responsibility should be shared through concrete actions rather than broad statements of coordination.

Prevention also needs careful design. Public communication should provide practical, understandable information and connect people to services. Awareness campaigns are less useful when the recommended care remains inaccessible. Screening should be accompanied by diagnostic and treatment capacity.

Climate resilience adds another dimension. WHO’s framework for climate-resilient and low-carbon health systems links adaptation with the ability to protect communities and sustain services under changing environmental conditions.

For local planning, this suggests examining electricity, water, cooling, storage, transport routes, communications, and surge capacity. A facility that functions during ordinary conditions may become inaccessible during flooding, extreme heat, or other disruptions. Continuity plans should prioritise services and populations most vulnerable to interruption.

The report recommends practical preparedness exercises. Teams should test how medicine distribution, urgent referral, and patient communication would continue during a foreseeable disruption. These exercises can reveal weaknesses before an actual emergency.

A resilient access strategy should support both everyday reliability and continuity during shocks. The same investments in coordination, information, and dependable supplies can contribute to both aims.

## 25. Proposed District Healthcare Access Model

| Function | Core responsibility | Evidence of progress |
|---|---|---|
| Identify need | District planning team and community partners | Previously unrecognised access barriers documented |
| Deliver first-contact care | Primary-care teams | Advertised services reliably available |
| Coordinate referrals | Sending and receiving facilities | More patients complete appropriate referrals |

| | | |
|---|---|---|
| Support continuity | Local teams and navigation staff | Fewer avoidable interruptions in treatment |
| Review equity | District management and independent evaluators | Gaps between population groups narrow |

This report proposes a district healthcare access model organised around five connected functions: identifying need, providing reliable first-contact care, coordinating referrals, supporting continuity, and reviewing equity.

The model begins with a district needs assessment. Planners should combine facility information, population characteristics, travel conditions, and community input. The assessment should identify specific underserved groups and locations rather than treating the district as a uniform population.

The second function is a clearly defined primary-care offer. Participating facilities should communicate their service hours, available tests, essential medicines, and referral arrangements. Managers should verify whether the advertised offer is actually delivered.

The third function is referral coordination. A district team should maintain current information on service availability and establish communication between sending and receiving facilities. For complex or vulnerable patients, navigation support should help with appointments, transport information, and follow-up.

The fourth function is continuity. Patients who need ongoing care should have an understandable plan and a recognised point of contact. Hospital discharge should connect to local services when appropriate. Digital tools may support the process, but a usable paper or assisted alternative should remain available.

The fifth function is regular review. District teams should examine incomplete referrals, interrupted treatment, medicine shortages, unexpected patient payments, and unequal results. Review should lead to specific corrective actions with named responsibility and a follow-up date.

This is a proposed operating model, not a validated national programme. It should be piloted in varied settings and adapted after evaluation. The intention is to connect existing institutions more effectively before assuming that every problem requires a new organisation.

## 26. Implementation Roadmap: From Assessment to Expansion

Implementation should proceed in stages so that expansion follows demonstrated functionality. Launching every component simultaneously can overwhelm staff and make it difficult to identify why performance differs across locations.

**The first stage is preparation.** District teams should map services, consult communities, identify major access failures, and establish baseline measures. They should also review existing programmes to avoid creating duplicate structures. The output should be a short operational plan with a limited number of priorities.

**The second stage is service reliability.** Selected facilities should address basic barriers such as uncertain opening hours, medicine shortages, missing information, and unclear referral contacts. This stage should focus on delivering the promised service consistently.

**The third stage is pathway integration.** Primary care, diagnostics, hospitals, transport, and navigation should test shared procedures using a limited set of care pathways. Suitable pathways should be chosen according to local need and implementation capacity, not national visibility alone.

**The fourth stage is evaluation and adjustment.** Teams should examine whether patients completed care, whether costs changed, and which groups benefited. They should also assess staff workload, unintended consequences, and the expense of maintaining the intervention.

**The fifth stage is expansion.** Additional facilities or services should be included only after the operational requirements are understood. Expansion should include recurrent financing, training, supervision, and maintenance rather than relying solely on one-time setup resources.

This report suggests an illustrative two-year pilot cycle, with preparation and baseline work followed by phased implementation and repeated review. The exact schedule should reflect district capacity and the complexity of the chosen

pathways. The proposed duration is a planning option, not an evidence-based guarantee of success.

Implementation should also include conditions for pausing or redesigning an intervention. If a new registration process excludes patients, if staff workload becomes unsafe, or if costs rise without measurable benefit, the response should be adjustment rather than automatic continuation.

A disciplined rollout protects resources and makes learning possible. The goal is not rapid expansion for its own sake, but a service model that remains useful and financially supportable after initial attention fades.

## 27. Resource Planning and Budget Prioritisation

A credible access strategy needs a budget that reflects its operating requirements. Capital expenditure can create visible infrastructure, but recurrent funding determines whether services remain available. Staff, medicines, maintenance, transport coordination, communications, and supervision must be financed over time.

This report does not provide a national cost estimate because the required inputs vary substantially by location and service scope. Instead, it proposes an activity-based budgeting method. Each component should identify the tasks required, the staff time involved, equipment and supply needs, expected service volume, and maintenance costs.

Budget planning should distinguish existing resources from additional requirements. A district may already have vehicles, digital systems, or staff that can support the proposed model if coordination improves. Reusing existing capacity may reduce duplication, but it should not assume that current staff can absorb unlimited new work.

Prioritisation should consider expected health benefit, equity, feasibility, and sustainability. An intervention that reaches a small remote population may have a higher cost per person but still be justified because it addresses severe exclusion. Efficiency should not be defined in a way that automatically favours easier-to-reach populations.

The report recommends a minimum service-reliability package before investment in advanced tools. This package should address basic staffing, essential supplies, communication, and referral arrangements. Technology can then be added where it solves an identified problem.

Procurement should account for lifetime cost. A low purchase price may be misleading if equipment requires expensive consumables, specialised maintenance, or unreliable technical support. Contracts should make these obligations visible.

Budget execution should be monitored alongside allocation. Managers need to know whether funds were released on time, whether procurement was completed, and whether the purchased inputs reached service locations. Underspending may reflect administrative obstacles rather than low need.

Finally, financial planning should include an exit or transition strategy for externally supported pilots. Services that patients rely on should not disappear because a short grant ends. Sustainable access requires clarity about who will pay for essential functions after the pilot period.

## 28. Measuring Progress: An Access and Equity Dashboard

| Domain | Illustrative measure | Important interpretation issue |
|---|---|---|
| Service reliability | Days with required staff and tracer medicines available | Facility opening alone does not prove readiness |
| Timely access | Time from identified need to appropriate assessment | Urgent and routine pathways require separate analysis |
| Affordability | Patient spending across a defined episode | Include people who abandoned or postponed care |
| Continuity | Proportion completing agreed follow-up | Define who was eligible for follow-up |
| Referral performance | Proportion reaching the appropriate receiving service | A referral issued is not a referral completed |
| Patient experience | Understanding, respect, privacy, and navigation | Use accessible and confidential feedback methods |

| | | |
|---|---|---|
| Equity | Differences by geography and relevant social characteristics | Protect privacy and avoid unreliable small-group estimates |

Measurement should show whether people obtain appropriate care, not merely whether institutions are busy. A compact dashboard can support action if its indicators are clearly defined and linked to decisions.

This report proposes six measurement domains: service reliability, timely access, affordability, continuity, quality, and equity.

Indicators should have explicit numerators, denominators, reference periods, and data sources. For example, “follow-up completion” must specify whether the denominator includes all patients scheduled, only those contacted, or only those who agreed to participate. Different definitions can produce very different results.

Disaggregation is essential, but it requires care. District averages may improve while remote communities remain excluded. At the same time, very small subgroup counts can create unstable estimates and privacy risks. Reporting rules should balance visibility with statistical and ethical safeguards.

Administrative data should be supplemented with household or community research. Facility records cannot adequately describe people who never reached the facility. Patient surveys should also include unsuccessful care-seeking experiences where feasible.

The dashboard should be manageable. Collecting too many indicators can increase workload and reduce data quality. Each measure should answer a practical question and have an identified user.

Review meetings should conclude with actions, not just presentations. If referral completion falls, teams should investigate the cause, change the process, and assess the result. Measurement becomes valuable when it improves decisions.

## 29. Evaluation Design: Distinguishing Activity from Impact

An intervention should not be judged effective merely because performance improved after its introduction. Other changes may have occurred at the same time, including staffing increases, seasonal variation, new funding, or changes in the population using services.

This report recommends choosing an evaluation design before implementation. Where feasible, phased rollout can support comparison between areas that begin at different times. Comparable non-participating areas may also be useful, although differences between them must be assessed.

A before-and-after study can still provide operational learning, but its limitations should be stated. It may show that waiting times fell or referral completion increased without proving that the intervention caused the change. Stronger causal claims require a design that addresses plausible alternative explanations.

Evaluation should include implementation fidelity. If an intervention performs poorly, researchers need to know whether the underlying model was ineffective or whether essential components were never delivered. Conversely, apparent success may depend on unusually intensive support that would be difficult to maintain at scale.

Cost evaluation should examine both provider and patient perspectives. A programme may reduce hospital workload while shifting costs to households. Another may require additional public spending but reduce travel and lost wages substantially. These trade-offs should be made explicit.

Equity analysis should be planned from the beginning. Researchers should ask whether effects differ by geography, income-related vulnerability, disability, language, gender, or other locally relevant characteristics. An average positive result may conceal limited benefit for the population the programme intended to prioritise.

Qualitative research can explain mechanisms. Interviews with patients, non-users, frontline staff, and managers may reveal why a process succeeds or fails. Such work should use appropriate consent and avoid treating a small number of accounts as representative of the entire district.

The final evaluation should report benefits, limitations, costs, and unintended consequences. The purpose is to guide decisions about continuation, adaptation, or expansion, rather than to justify a programme regardless of its results.

## 30. Illustrative Patient Pathways

### A rural patient requiring continuing treatment

The following scenarios are hypothetical. They demonstrate how several access barriers can interact and how the proposed model might respond. They are not case studies of identifiable patients.

A patient attends a local clinic and receives a diagnosis requiring regular follow-up. The medicine is initially available, but later refills require travel to a town. The patient begins missing visits because of transport costs and work commitments. Under the proposed model, the district would examine medicine availability, refill arrangements, and follow-up options together. Success would mean sustained appropriate treatment, not simply sending more reminders.

A worker visits several providers after work because the nearby public service operates during working hours. Each provider requests information that the patient cannot easily supply. Costs accumulate, and the diagnostic pathway remains incomplete. A coordinated local service could offer suitable hours, a concise treatment summary, and a clear referral destination. Evaluation would assess whether the worker receives the necessary assessment with fewer avoidable visits.

An older patient returns home with several medicines and instructions that the family does not fully understand. Follow-up is scheduled at a distant hospital, while local providers have limited information. The proposed model would connect discharge communication with local review and navigation. The objective would be continuity and safe understanding of the plan, rather than assuming that discharge itself marks the end of care.

A patient reaches a facility but encounters inaccessible registration and examination arrangements. Staff address the accompanying person rather than the patient. An accessibility review would identify barriers across the full visit and support changes in equipment, communication, and workflow. Progress would be assessed through the patient’s ability to use the service with dignity and appropriate independence.

These examples show why a single intervention rarely resolves every barrier. Effective access depends on aligning service delivery with the patient’s circumstances and maintaining responsibility across transitions.

## 31. Priority Recommendations

The report recommends a focused set of reforms that can be adapted to local conditions.

**First, make primary care dependable.** Establish a clear service offer and verify staffing, medicines, diagnostics, and operating hours. Reliability should precede ambitious claims about comprehensive coverage.

**Second, measure completed care pathways.** Track movement from screening to diagnosis, treatment, referral, and follow-up. Programme activity should be connected to patient benefit.

**Third, strengthen outpatient financial protection.** Examine recurring medicine, diagnostic, travel, and consultation costs alongside hospital expenditure. Include treatment abandonment in affordability analysis.

**Fourth, build supported teams.** Workforce strategies should address distribution, skill mix, working conditions, supervision, and retention. Registration totals and recruitment announcements are insufficient measures of access.

**Fifth, coordinate referral and discharge.** Sending and receiving institutions should share responsibility for clear communication and continuity. Patients should not have to manage every transition alone.

**Sixth, design for inclusion.** Maintain assisted and non-digital routes, accessible facilities, language support, and confidential communication. Test services with the people most likely to face barriers.

**Seventh, use technology for defined problems.** Evaluate digital systems through waiting time, task completion, treatment continuity, and equitable use. Avoid treating account creation or application adoption as health outcomes.

**Eighth, link financing to appropriate care.** Purchasing arrangements should include quality, patient protection, and monitoring of incentives. Additional spending should be assessed through its practical contribution to access.

**Ninth, strengthen district management.** Provide teams with usable data, authority to address operational problems, and clear escalation routes. Review should lead to corrective action.

**Tenth, evaluate before large-scale expansion.** Pilot interventions in varied settings, assess costs and unintended effects, and publish limitations alongside achievements.

These recommendations should not be interpreted as a universal sequence that every district must follow identically. Local baseline conditions should determine the order of action. A district with severe medicine shortages may need a different starting point from one where the principal barrier is referral delay.

The common requirement is to connect reform decisions to observable patient needs and to verify whether the resulting changes reduce exclusion.

## 32. Research Gaps and Limitations

Several evidence gaps limit confident national conclusions. Available data often describe expenditure, infrastructure, or service use more clearly than they describe unmet need, treatment interruption, and the quality of completed care pathways. These missing dimensions are central to access.

Future research should examine people who do not reach services. Household surveys, community-based studies, and carefully designed qualitative work can identify why care was delayed or abandoned. Facility-based research alone risks overlooking those facing the greatest barriers.

More evidence is also needed on the comparative effectiveness of delivery models. Assisted telemedicine, outreach, navigation, extended clinic hours, and referral coordination may each help in particular settings. Their relative value depends on context, implementation quality, and cost. They should not be ranked using assumptions alone.

The long-term sustainability of pilots requires particular attention. A programme may perform well with dedicated external staff and intensive supervision, then weaken when integrated into routine administration. Evaluation should therefore include what happens after initial support is reduced.

This report has methodological limitations. It uses a targeted selection of sources rather than an exhaustive literature review. It does not analyse patient-level datasets, produce new prevalence estimates, or conduct formal economic modelling. Its proposed district model is a reasoned synthesis that requires empirical testing.

Some cited evidence describes earlier periods. Historical data can illuminate structural issues, but should not be treated as a complete account of current local conditions. Official releases also vary in the detail available for independent examination.

The report avoids estimating the size of every access barrier because doing so without a consistent dataset would create misleading precision. It instead identifies mechanisms, planning requirements, and evaluation priorities.

Future versions could be strengthened through state-specific analysis, district fieldwork, patient interviews, and structured appraisal of intervention studies. Such work should include transparent methods and clear separation between observed findings and policy judgement.

The most important research priority is to make invisible access failures measurable without creating excessive administrative burden or compromising patient privacy.

## 33. Conclusion

Bridging India’s healthcare access gap requires the health system to become more dependable at every stage of the patient journey. Infrastructure, insurance, workforce expansion, and digital services each contribute, but their value depends on how well they connect.

A person should be able to identify an appropriate service, reach it, receive competent assessment, obtain necessary treatment, and continue care without avoidable financial or administrative hardship. When any of these steps fails, the system may appear accessible on paper while remaining difficult to use in practice.

The analysis supports a shift towards complete pathways and local accountability. Primary care should provide a reliable foundation. Referral systems should connect institutions. Financial protection should address the recurring costs of illness. Workforce policy should support functioning teams. Digital tools should simplify tasks and preserve access for people who cannot use them independently.

Equity should guide both allocation and evaluation. Uniform service expansion may leave the most disadvantaged populations behind if their barriers require additional support. Districts should therefore examine who benefits, who remains excluded, and whether the distance between these groups is narrowing.

Progress also requires honest measurement. A consultation count does not establish treatment completion. An insurance entitlement does not prove financial protection. A digital record does not guarantee continuity. A facility opening does not establish readiness. These indicators are useful when their limits are understood and when they are connected to outcomes that matter to patients.

The proposed district model offers a practical basis for further development: identify need, make first-contact care reliable, coordinate referrals, support continuity, and review equity. Its effectiveness should be tested through transparent evaluation and adapted to different settings.

India’s access challenge is substantial, but it is also concrete. Many barriers can be described, assigned to responsible institutions, and addressed through sustained operational improvement. The measure of success will be whether people who previously delayed, abandoned, or struggled to obtain care can complete an appropriate pathway with confidence, dignity, and financial security.

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## Appendix A. Proposed District Assessment Questions

The following questions translate the report's framework into an initial planning exercise. They are proposed research and management questions, not findings.

**Population and need:** Which settlements and population groups experience the greatest difficulty obtaining care? Are temporary residents, migrants, people with disabilities, and isolated older adults represented in planning data? Which needs appear in community accounts but are poorly reflected in facility utilisation?

**Service reliability:** Which services are advertised at each facility, and which are consistently delivered? How often do staffing gaps, medicine shortages, equipment failure, or unavailable diagnostics interrupt care? Are patients informed before travelling when a service cannot operate?

**Patient costs:** What does a complete episode cost, including transport and lost earnings? At which stage do people face the largest payment? How many patients postpone or discontinue care because of expense, even when consultation or hospital treatment is nominally covered?

**Referral performance:** Do patients understand why they are being referred? Is the receiving service appropriate and available? How many patients complete referral, and what happens to those who do not? Does information return to the local provider?

**Continuity:** Can patients obtain repeat medicines and follow-up near home where appropriate? Do discharged patients receive understandable instructions? Who responds when a patient cannot attend or experiences a problem with the plan?

**Inclusion and trust:** Can people use the service without a smartphone? Are language, disability, and literacy needs accommodated? Can patients speak privately and raise concerns without fear of losing care? Are complaints followed by visible action?

Answers should be gathered through several methods rather than one checklist. Records show service activity, observation reveals workflow, and patient accounts explain lived barriers. Differences between these sources should be investigated rather than averaged away.

## Appendix B. Proposed Principles for Responsible Health Innovation

Health innovation should begin with a clearly defined access problem. The proposed user, service setting, and expected benefit should be specific enough to evaluate. “Improving healthcare” is too broad to guide product design or establish effectiveness.

An intervention should fit existing care responsibilities. A tool that identifies a risk or recommends a referral needs a clear human and institutional response pathway. Otherwise, it may create additional information without creating additional access.

Design should include the least advantaged intended users. Testing only with confident smartphone users or highly resourced facilities can conceal major barriers. Assisted use, accessibility, language, and connectivity constraints should be considered before expansion.

Patient benefit should be distinguished from commercial activity. More registrations, transactions, or subscriptions do not necessarily indicate improved health access. Relevant measures should reflect the problem the intervention claims to solve.

Data collection should remain proportionate. Organisations should be able to explain why each category of information is necessary and how it contributes to care or an explicitly agreed purpose. More data should not automatically be assumed to produce better services.

Financial sustainability should be examined openly. A low introductory price may not represent the long-term cost. Providers and patients should understand recurring charges, maintenance requirements, and what happens if the service is discontinued.

Evaluation should include failure. Unsuccessful consultations, incomplete referrals, inaccessible interfaces, and patient complaints are important evidence. Excluding these experiences can make a product appear more effective than it is.

Responsible innovation earns a role within the health system by demonstrating useful, equitable, and sustainable improvement. Its success should be measured through the care people can complete and the burdens they no longer have to carry.