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Why India's Next Healthcare Shift Will Be Decentralised by Design

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Diagnostics has historically sat at the centre of clinical decision-making, yet operationally it has remained distant from where care actually begins. In India, this structural mismatch is becoming increasingly difficult to ignore. Let's take a deep dive and unearth what's the growing trend and initiatives.



India's healthcare expansion over the last decade has been substantial. As of February 2026, the country has operationalised 1,84,235 Ayushman Arogya Mandirs, sanctioned 744 Integrated Public Health Laboratories under Pradhan Mantri–Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), and approved 621 critical care blocks to strengthen district-level capacity. Screening programmes have scaled rapidly, with 40.1 crore hypertension screenings, 39.8 crore diabetes screenings, and over 33.8 crore oral cancer screenings already conducted through the public system.

These initiatives reflect a system focused on access and coverage. However, access alone does not translate into timely diagnosis. Yet the system remains constrained at the point of diagnosis. For a population of over 1.4 billion, reliance on centralised laboratories and episodic testing is structurally misaligned with the demands for chronic disease management, cancer screening, and outbreak response. The imbalance shows in delayed diagnoses, high referral rates, and avoidable escalation to tertiary care.

Access to reliable diagnostics

The constraint is structural. India has 13.9 lakh allopathic doctors and 39.4 lakh nursing personnel, translating to a doctor-to-population ratio of 1:811, but these averages mask uneven distribution and capacity gaps across geographies. At the same time, building full-scale laboratories across more than 180,000 primary care centres is neither economically nor operationally viable. As a result, screening is often decoupled from diagnosis, and diagnosis from treatment, creating friction across the care continuum.

Point-of-care testing addresses this gap directly. In the Indian context, decentralisation is not about convenience. It is about relocating diagnostic capability to where care actually happens: primary care centres, pharmacies, homes, ambulances, and field settings. Digitisation connects these tests to clinical workflows, teleconsultation platforms, and surveillance systems. Democratisation ensures that access to reliable diagnostics is not restricted by geography, infrastructure, or income.

This shift is already being driven by necessity. India continues to have a high out-of-pocket health expenditure burden, estimated at 39.4 per cent of total healthcare spending, and delayed diagnosis remains a key contributor. Moving diagnostics closer to patients shortens the time between suspicion and treatment, reduces repeat visits, and lowers system-level costs by avoiding unnecessary hospitalisations.

This shift is already visible in market trajectories. According to Frost & Sullivan, the global diagnostics market is expected to grow from ~\$110 billion in 2025 to over \$155 billion by 2030, while the point-of-care testing (POCT) market is projected to expand from \$50–55 billion to nearly \$90 billion over the same period. India's POCT market, currently estimated at \$1.5–2 billion, is expected to grow at a 12–15 per cent CAGR through 2030, reflecting strong underlying demand.

Addressing Major Disease Burdens

Demand for POCT is high in categories like glucose monitoring, infectious disease testing, cardiometabolic markers, coagulation testing, haematology, urinalysis, and pregnancy diagnostics, with growing interest in oncology markers and multiplex infectious disease panels. These areas align with India's major disease burdens. Chronic diseases such as diabetes and cardiovascular conditions need continuous monitoring, while infectious diseases like tuberculosis and dengue depend on rapid point-of care detection. Public health initiatives, like Gujarat's sickle cell anaemia screening, show how decentralised diagnostics can facilitate large-scale testing.

Technology is enabling this transition at speed. Advances in microfluidics, lab-on-a-chip systems, loop mediated isothermal amplification (LAMP), vertical flow assays, and nanotechnology-based biosensors are bringing laboratory-grade sensitivity into portable formats. These innovations allow complex testing to be performed outside centralised labs, reducing turnaround times and infrastructure dependency. POCT itself has evolved significantly, from qualitative strip-based testing to semi-quantitative and quantitative formats, and now to connected, cloud-enabled diagnostic systems. Diagnostics is no longer a one-time event. It is becoming a continuous data layer integrated into care delivery.

India has already demonstrated strong capability in this space. Molbio Diagnostics' Truenat platform has scaled into a portable molecular testing system deployed across India and exported to over 80 countries, with more than 10,000 devices installed globally. Initially designed for tuberculosis, it now supports over 40 assays, including influenza, dengue, hepatitis, and HPV. Similarly, Mylab Discovery Solutions developed India's first indigenous COVID-19 RT-PCR kit and expanded into rapid self-testing. Sensa Core Medical Instrumentation has built scale in point-of-care electrolyte analysers used in critical care settings. These examples reflect a shift. Indian companies are moving beyond cost-based manufacturing toward building scalable diagnostic platforms.

The next layer of impact comes from digitisation. With over 85 per cent smartphone and internet penetration, India has a structural advantage in scaling connected diagnostics. Smartphone-linked POCT devices enable real-time data capture, remote interpretation, and integration with telemedicine platforms. This is particularly relevant in rural and underserved areas, where specialist access remains limited.

Artificial intelligence (AI) builds on this foundation. AI-enabled diagnostics can improve accuracy, reduce variability, and support clinical decision-making at the point of care. Deployments such as SigTuple's AI based pathology systems, which automate blood analysis for conditions such as anaemia and malaria, illustrate the potential. Globally, AI models have demonstrated high sensitivity in disease detection and improved operational efficiency through predictive maintenance.

The combination of POCT, data, and AI creates a new operating model where diagnostics become accessible, interpretable, and actionable. In a system where delays often arise from interpretation and referral rather than testing alone, this integration is critical. The implications extend beyond individual care. Decentralised diagnostics strengthen public health surveillance by enabling real-time data capture and faster detection of outbreaks. During epidemics, the ability to test and respond at the community level reduces reliance on centralised labs and improves containment outcomes.

Diagnostics is becoming strategically important in the supply chain, as reliance on imported reagents and equipment has revealed vulnerabilities during trade disruptions. For India, this presents an opportunity to develop domestic capabilities in POCT and create exportable solutions for emerging markets.

Investment confidence is growing, as seen with the \$72 million funding in Sensa Core, and capital is increasingly directed towards companies blending hardware innovation and digital integration. Government initiatives supporting primary healthcare, domestic manufacturing, and digital health infrastructure are also gaining momentum.

To scale POCT adoption, primary care networks need structured test menus linked to treatment protocols, and disease programs should integrate near-patient diagnostics into workflows. Evolving regulatory frameworks must support AI-enabled diagnostics while ensuring quality. The private sector must evolve too, with diagnostic companies moving towards distributed testing ecosystems and healthcare providers incorporating POCT into various care settings. Technology firms should develop interoperable platforms that connect diagnostics to data and decision-making.

The need for point-of-care diagnostics in India is now a reality, crucial for enhancing patient access, lowering costs, and promoting preventive care. With existing demand, digital infrastructure, and innovation, the focus must shift to disciplined scaling. Decentralising diagnostics, digitising workflows, and enhancing access will help bring diagnostics nearer to patients, reduce delays, strengthen public health, and create a more responsive healthcare system.