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Closing gaps with AI: From radiology to TB detection, how data can democratise care

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India does not just need more technology it needs smarter, more inclusive systems that turn data into actionable insight



India's healthcare system has long been defined by scarcity - few doctors for a population of 1.4 billion, rising non-communicable diseases, and an overburdened public infrastructure. But it may also be uniquely placed to leapfrog with technology.

Artificial intelligence (AI), once met with skepticism in medicine, is now quietly moving from pilot projects to mainstream workflows like reading chest X-rays for tuberculosis, predicting cardiac events, and even drafting clinical notes for physicians. The opportunity is not simply to make hospitals more efficient, but to make quality care accessible to the last patient in the remotest village.

At recently held **Scale-Up Health event**, an initiative by Eight Roads Ventures, industry leaders came together to explore this promise. Moderated by **Prem Pavor, Ph.D., Managing Partner at Eight Roads India**, the discussion featured **Srikanth Velamakanni**, Co-Founder & Group CEO of Fractal Analytics; **Venky Ananth**, Executive Vice President and Global Head of Healthcare at Infosys; and **Dr Harlan Krumholz**, cardiologist and scientist at Yale University and Yale New Haven Hospital.

Their verdict was unanimous: India does not just need more technology it needs smarter, more inclusive systems that turn data into actionable insight.

The shift from episodic care to predictive systems

Dr Krumholz framed AI as a way to reimagine the very design of healthcare. "We're in early adolescence when it comes to AI in medicine," he said, noting that many tools today can already change how physicians work. Yet it is not technology that holds us back, but the slow-moving reimbursement systems and rigid workflows that resist change.

He urged a shift from episodic treatment to a system that continuously predicts and manages risk. India, he pointed out, is sitting on a goldmine of health data from EMRs to imaging records that remains largely untapped. "The real promise of AI is in catching disease before it becomes catastrophic. If we can flag high-risk patients early, we can save both lives and costs," he said. Globally, one of the most successful use cases has been ambient AI, which listens to consultations and drafts clinical notes automatically. Its growing adoption shows that when AI removes friction from a doctor's day, integration into clinical workflows happens naturally.

The payer and provider equation

According to Venky Ananth, AI adoption has advanced fastest among payers. "We're moving to 96–98% automation in claims adjudication," he said, pointing to fraud detection and utilization management as areas where AI is already creating measurable impact. But he argued that the real opportunity lies in going beyond claims settlement and using data to design care pathways and proactively guide patients toward preventive care.

On the provider side, AI is starting to address one of healthcare's most persistent pain points, that is the administrative overload faced by doctors. "In the US, doctors are called data clerks because they spend two hours documenting every hour with a patient," Ananth noted. AI-powered summarization tools are reducing this burden, improving documentation quality, and even streamlining revenue cycle management ultimately allowing physicians to spend more time with patients.

A chance for India to leapfrog

Srikanth Velamakanni argued that India's real opportunity lies in using AI to solve scale problems. His company's health-tech venture, Cure.ai, has built AI-driven radiology tools with 27 FDA clearances, impacting 32 million lives across 50 countries. "We picked TB as a starting point because of India's burden," he said, describing mobile screening units that can diagnose and start therapy on the same day.

Fractal has also launched **Vaidya.ai**, a healthcare-specific large language model (LLM) built for India. Accessible via WhatsApp, it helps patients interpret X-rays, ECGs, and lab reports, preparing them for doctor consultations and offering post-visit guidance. "This can be a game-changer for India, where access to primary care remains limited," Velamakanni noted.

Superhuman accuracy and ethical guardrails

The panelists agreed that AI is reaching a point where its diagnostic accuracy can exceed human performance. Krumholz highlighted AI models that can detect early cardiac risks from ECGs far beyond what clinicians can see. But he cautioned that models must be rigorously evaluated, just like new drugs, before widespread use.

Velamakanni added that in some TB programs, Cure.ai's models have already outperformed radiologists, a milestone that may soon raise ethical questions. "If AI is cheaper, faster, and more accurate, there will come a time when not using it

becomes unethical," he said.

Building Indian datasets for Indian problems

One of India's biggest advantages is the availability of diverse, high-quality data and cost-effective annotation talent. Velamakanni explained that building AI at population scale is not just possible but more affordable here than in the West. Still, interoperability and secure data sharing are critical. "AI works only as well as the data it learns from," he said, calling for healthcare players to break silos and align on standards.

From pilots to population health

India has moved beyond pilots, AI is now deployed in state TB programs, public hospitals, and private networks. The next frontier is embedding these solutions into public health infrastructure and reimbursement frameworks, so they benefit millions, not just a few.

As Pavoor summarised, "Democratising care is not about having the most sophisticated tool in a corporate hospital. It's about ensuring the last patient in the remotest village also benefits." If India succeeds, its next healthcare leap may not be a new hospital chain or a breakthrough therapy, but a data-led system that predicts, prevents, and personalizes care at scale. When that happens, AI will not just be a technology story, it will be a public health revolution.