

# HEALTHCARE RADIUS

ALIGNING BUSINESS AND HEALTHCARE IN INDIA

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**DISEASE CONTROL**  
Overcoming India's  
AMR challenge

**INTERVIEW**  
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## Addressing India's **RURAL CARE GAP**

Lakhs of rural Indians lack access to healthcare services. Learn how India can improve healthcare accessibility in its rural areas.



# ADDRESSING INDIA'S RURAL CARE GAP

Lakhs of rural Indians lack access to healthcare services. Learn the ways India can improve healthcare accessibility in its rural areas.

*Team HR*



India, with over 140-crore population, faces serious challenges in providing accessible and affordable healthcare to her villages. Despite the country's economic growth, its hinterland, home to over 70 percent of the country's population, is burdened by healthcare issues such as lack of diagnostic infrastructure, unavailability of affordable care, and shortage of healthcare professionals.

The scarcity of pathology laboratories and testing facilities, coupled with a lack of qualified pathologists, technicians, and biochemists, has resulted in a gap in diagnostic services in rural India. The outdated and inefficient technologies further exacerbate this gap, impacting treatment outcomes.

Pranav Bajaj, Co-Founder, Medulance, says, "Rural areas frequently lack well-equipped hospitals and clinics. This means deficiencies in crucial equipment like advanced life support machinery, trauma care facilities, and diagnostic tools."

In many regions, explains Bajaj, the nearest multi-specialty hospital is often 100+ kilometers away, making timely medical intervention difficult. "The situation is worsened by the rough roads that ambulances find difficult to navigate, delaying critical response during emergencies."

Deficient rural transportation is another serious issue. Siddarth Daga, MD, VINS Bioproducts, cites an example: "In rural areas, deficient transportation infrastructure impedes patients' swift access to healthcare facilities following snakebites. Such delays can extend exposure to venom toxins and obstruct prompt administration of anti-venom therapy, thereby jeopardizing patient outcomes."

Dr Vishwa Srivastava, MD President & COO - South Asia, SS Innovations, highlights another aspect: "In more than two decades, despite having over 70,000 hospitals, India has less than 200 surgical robotic systems, mostly located in metro cities or corporate hospitals. This leaves behind thousands

## COVER STORY

of patients [in rural areas] without access to this advanced technology.”

Termining health as a fundamental human right, Pallavi Vajinepalli, Principal Scientist and Group Leader, at Philips Innovation Campus, Bengaluru, points out the irony that over half of the world’s population still lacks the access to health services they need. “Every day, nearly 800 women around the world die from preventable causes related to pregnancy and childbirth, with 95 percent of maternal deaths happening in low-income countries. Affordable access to high-quality maternal care, during and after pregnancy and childbirth, can help reduce high mortality rates.”

### ROLE OF GOVERNMENT

The Indian government has been taking measures covering infrastructure development, healthcare financing, workforce training, and technology integration. There has been a 30 percent increase in primary health centers and a 50 percent increase in healthcare workers between 2013 and 2023.

The Prime Minister Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), launched with ₹64,180 crore outlay, seeks to strengthen India’s healthcare system. The National Rural Health Mission (NRHM) provides training

to healthcare workers, and works toward improving access to essential medications.

“The government’s commitment to technological transformation is evident in its allocation of ₹3,420 crores under the PLI scheme, aimed at boosting domestic manufacturing of medical devices. This investment is expected to enhance healthcare infrastructure, paving the way for innovations like tele-surgery to become commonplace in rural healthcare settings,” opines Dr Vishwa Srivastava of SS Innovations.

The government’s other initiatives include the use of telemedicine, formation of women-centric mobile health clinics, opening mini-hospitals in less populated areas, and the creation of formalized training for local healthcare providers.

According to Karthik Kondepudi, Partner, Herbochem, “Governments, organizations, and educational institutions are taking actions to alleviate lack of qualified medical workers in rural areas. Some of the initiatives include education, infrastructure, incentive programs, mobile clinics, and support for community health workers.”

To address affordability, the India spends 2.1 percent of its GDP on healthcare. But this is far lower than

to average spending of 9.7 percent across OECD countries. “While the government’s dual role as service provider and payer, exemplified by the Ayushman Bharat scheme, poses challenges, it can function as a facilitator and regulator,” comments Dr Nitish Shetty, CEO, Aster DM Healthcare India.

To address the urban-rural healthcare divide in India, the government should increase, says Girish Agarwal, Co-Founder, Zeno Health, “the budget for rural healthcare, enforce existing policies effectively, introduce new policies aimed at rural health improvement, and offer incentives to retain healthcare workers in rural areas.”

### THE AYUSHMAN BHARAT FACTOR

The Ayushman Bharat scheme was launched in 2018 to expand universal health coverage, especially to rural and vulnerable populations. This initiative has been designed to meet WHO’s SDG-3 Target 3.8, i.e., achieve universal health coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality.

Stating that Ayushman Bharat scheme has demonstrated mixed success in rural areas, with its health insurance arm reaching around 56 percent of eligible beneficiaries by 2023, Smriti Tandon, Co-founder, Online Chikitsa Mitra, observes, “states like Tamil Nadu, Kerala, Rajasthan, and Karnataka have reported significant hospitalization rates per enrolled individuals, with figures ranging from 41,089 to over 179,003 hospitalizations per 1,00,000 beneficiaries. However, states like Assam and Uttar Pradesh exhibit lower utilization rates, with hospitalizations as low as 5,292 and 7,928 per 1,00,000 beneficiaries, respectively.”

The Ayushman Bharat scheme has two components: Health and Wellness Centers (HWCs) and Pradhan Mantri Jan Arogya Yojana (PM-JAY). HWCs provide Comprehensive Primary Health Care (CPHC), covering maternal and child health services, NCD, free essential







**Pranav Bajaj**, Co-Founder, Medulance

drugs, and diagnostic services. PM-JAY provides ₹5 lakh health insurance cover per family per year for secondary and tertiary care hospitalization to over 10.74 crore poor families. A landmark of 1.5 lakh Ayushman Bharat HWCs surpassed in 2023. The program's achievements so far include ~86.90 crore screenings for NCDs, ~9.3 crore teleconsultations provided, ~135 crore cumulative footfalls, and ~1.60 crore wellness sessions at HWCs.

While Ayushman Bharat has made strides in expanding healthcare coverage in India, there still exist pockets where the scheme's awareness and enrolment rates are low, comments Bakul Chandra, Mentor and Design Strategist, Renascent Consultants. "Strengthening public-private partnerships can help fill gaps in healthcare delivery. The scheme should also focus on monitoring and improving the performance of healthcare facilities, adherence to clinical protocols, and patient satisfaction levels. Improving data collection, analysis, and reporting mechanisms at the grassroots level can provide valuable insights for program management and decision-making," he comments.

While praising Ayushman Bharat for its decent penetration, Dr Syed Sabahat Azim, Chairman, Glocal Healthcare Systems, Kolkata, highlights a downside: "Of late, many private players are shying



**Siddarth Daga**, MD, VINS Bioproducts

away from the scheme due to payment delays and lower rates." Due to its funding gaps, the scheme has been failing to realize its full potential and its current rates make it unviable for most private players, he says.

#### MANPOWER SHORTAGE

"Most healthcare experts are concentrated in urban areas, yet 75 percent of India's population lives in villages. This disparity means rural residents often travel long distances to see a specialist, which can delay critical care," observes Vaibhav Jain, an Ayush expert and Co-founder, Aayush Bharat.

Siddarth Daga of VINS Bioproducts informs, "Many governments offer incentives such as financial bonuses, scholarships, loan waiver schemes, and preferential placement for healthcare professionals who agree to work in rural areas for a specified period. These incentives aim to attract and retain

An innovative step being taken to address the shortage of trained medical personnel in rural India has been the introduction of short medical courses for medical practitioners serving in rural PHCs.



**Dr Vishwa Srivastava**, MD President & COO - South Asia, SS Innovations

medical personnel in underserved rural communities."

The government's proposal of allowing Ayurvedic doctors to perform surgical procedures in rural areas met with a strong opposition from IMA. There has been another proposal of starting a Bachelor of Rural Medicine course. The National Rural Health Mission (NRHM) launched in 2005 aims to provide affordable quality healthcare. Under this, public health institutions need to comply with the Indian Public Health Standard (IPHS), in terms of infrastructure, human resources, equipment, and drugs.

NRHM has laid down staffing norms under which, the Health Sub-Center (HSC) is to be staffed by two auxiliary nurse midwives (ANM) with 18 months' training, a male health worker (MPW-M). The primary health center (PHC) needs to be staffed by three doctors plus a fourth trained in indigenous medicine along with five nurses and one ANM. The community health center (CHC) is conceived as a rural hospital with 30 beds, a functional operation theater and blood storage facility is to be staffed by six general duty doctors and six specialists and 19 nurses. Similarly, the District Hospital (DH) is to be staffed with at least 30 doctors and thrice as many nurses for a 101 to 200 bedded hospital.



**Pallavi Vajinepalli**, Principal Scientist and Group Leader, at Philips Innovation Campus, Bengaluru



**Karthik Kondepudi**, Partner, Herbochem



**Dr Nitish Shetty**, CEO, Aster DM Healthcare India

“NRHM and its affiliated programs train medical professionals, such as physicians, nurses, and community health workers. With this training, they meet the health requirements of those living in remote areas,” informs Vaibhav Jain of Aayush Bharat.

#### WHAT PRIVATE SECTOR CAN DO

The private sector has made notable contributions to the healthcare industry and introduced competitive pricing, innovative financing options, and cost-effective practices to improve affordability. According to the National Sample Survey (NSS)’s 71st round on social consumption (2014), more than 70 percent (72 percent in rural areas and 79 percent in urban areas) of illnesses were treated by the private hospitals and clinics.

“The private sector,” comments Vaibhav Jain of Aayush Bharat, “is instrumental in infrastructure development and capacity building in rural areas. Hospitals establish satellite centers to provide specialized care and create referral networks with urban hospitals. This ensures that critical cases can be managed effectively.”

Multiple public-private partnership (PPP) models can be seen at work. Medulance, for example, partners with public sector undertakings (PSUs) including CGHS, Coal India, ESIC, GAIL,

NTPC, SECL, UPEIDA, etc, to provide sustainable emergency care services to 150-plus tier-2 and tier-3 cities in Madhya Pradesh, Uttar Pradesh, Odisha, and West Bengal.

According to Dr Syed Sabahat Azim of Glocal Healthcare Systems, “The private sector executes several PPP projects. There are examples of outsourcing of management of PHCs, where organizations like Karuna Trust, WISH Foundation, and Apollo have managed PHCs. In several states running of Mobile Medical Units has been outsourced to the private sector. There are examples of diagnostic services being outsourced to private sector at agreed rates.”

Dr Azim cites an example wherein the Odisha government, in partnership with Glocal Healthcare, provided digital doctor access, diagnostics, and medicines to the rural poor. Glocal was paid by the government and the care services were free for the patients.

Dr Nitish Shetty of Aster DM Healthcare recommends what private sector can do: “Some of the ways that private healthcare can improve health accessibility in rural areas are by: set up clinics or hospitals that can function as per a hub-and-spoke model, deploy technologies like telemedicine to connect rural masses to city-based healthcare providers, and conduct health programs to educate the rural

population on importance of maintaining good health for disease prevention.”

Under its Project ECHO, the Indian government connects specialist doctors with rural primary healthcare providers through teleconferencing. Project ECHO aims to improve access to specialty care and enhance the knowledge and skills of rural primary healthcare providers.

Under another project, Madhya Pradesh state government delivers digital dispensaries on a PPP model. These dispensaries, funded by private entities and operated by public health







**Girish Agarwal**, Co-Founder, Zeno Health



**Smriti Tandon**, Co-founder, Online Chikitsa Mitra



**Bakul Chandra**, Mentor and Design Strategist, Renascent Consultants

organizations, and involving NGOs, use hybrid internet connectivity to deliver high-quality healthcare via telemedicine. Providing access to about 200 villages across four districts and nearly 2.50 lakh people, the centers host virtual doctor consultations, stock and dispense drugs, conduct lab tests, and host free screening camps.

Private players, says Girish Agarwal of Zeno Health, “can organize routine health camps and educational programs in rural areas in the form of CSR activities.” Zeno Health has been

expanding into rural areas to provide affordable generic medicines and collaborating with local healthcare providers, it aims to improve service delivery and healthcare outcomes in underserved communities.

Stating that enhanced connectivity to tier-2 and tier-3 cities holds the key, Dr Nitish Shetty of Aster DM Healthcare, says, “The most suitable public-private partnership (PPP) is one that benefits all patients. The challenge lies in augmenting connectivity, rather than solely catering to the interests of private entities.”

Non-governmental organizations (NGOs) have been instrumental in helping improve healthcare accessibility in rural India. Many NGOs, working in collaboration with government health departments and private sector, operate clinics and hospitals in rural areas, providing essential medical services to communities that lack access to such facilities.

Commenting on the role played by NGOs, Sushma Shende, Program Director - Maternal and Child Health, Society for Nutrition, Education and Health Action (SNEHA), an NGO, says, “NGOs work in partnership with the government to create health awareness, provide health and nutrition information, referral of pregnant women and unwell children to the government health

centers. A few NGOs also run mobile health clinics to support areas that are located far from government health facilities.”

#### INTERVENTION

Telemedicine connects remote patients with urban healthcare providers, reducing travel and time. Mobile health uses devices like smartphones for healthcare services. AI can diagnose diseases, predict outcomes, and customize treatments, enhancing healthcare access. Stating that technology can be a game-changer in improving healthcare accessibility in rural areas, Herbochem’s Karthik Kondepudi advocates for extensive use of telehealth, mobile health applications, e-health records, health information systems, etc. to bridge the urban-rural gap.

“Technology can play a big role in access to healthcare, especially in rural areas. Point of care ultrasound is one such technology that has the potential to improve lives of women and children globally,” maintains Pallavi Vajinepalli of Philips Innovation Campus.

Stating that mobile medical units equipped with diagnostic tools and telecommunication technology can travel to remote areas to provide on-the-spot medical care, Smriti Tandon of Online Chikitsa Mitra, opines that





**Sushma Shende**, Program Director - Maternal and Child Health, Society for Nutrition, Education and Health Action (SNEHA)



**Dr Syed Sabahat Azim**, Chairman, Glocal Healthcare Systems, Kolkata



**Vaibhav Jain**, an Ayush expert and Co-founder, Aayush Bharat

“mobile health apps provide valuable health information and education, offering guidance on disease prevention, maternal health, and child care.” She provides an example of “UNICEF’s Momconnect, which uses SMS technology to send regular messages appropriate to the stage of pregnancy or age of the baby, helping to link pregnant women and mothers to healthcare.”

Siddarth Daga of VINS Bioproducts shares an example how VINS’ introduction of telemedicine in Telangana’s Mahabubnagar and Rangareddy districts improved access to healthcare in these locations. By educating the local people about teleconsultation and by providing these services, the company managed to enhance people’s access to medical consultations that were nearly non-existent earlier.

Microsatellite centers are revolutionizing rural healthcare as they wirelessly connect remote locations to healthcare providers. E-clinics, which provide virtual doctor consultations to rural Indians, are also helpful. They are offline centers in rural areas equipped with medical facilities such as basic check-ups, and first aid.

The Indian Ministry of Health and Family Welfare has implemented several ICT initiatives to improve the country’s

The private sector has made notable contributions to the healthcare industry and introduced competitive pricing, innovative financing options, and cost-effective practices to improve affordability.

healthcare system. These include the National Health Portal, e-Hospital@NIC, a patient feedback system, and several mobile apps to support vaccination tracking, disease information, stress management, and more.

In recent years, we have seen a rise in medical diagnostic tools developed by startups, NGOs, and tech companies using computer vision and machine learning. These tools are more affordable, portable, have low maintenance, and don’t require advanced training to operate compared to the traditional diagnostic devices.

**FUTURE OF RURAL HEALTHCARE**

“As modern medicine evolves and hyper-specialization increases, accessibility challenges will continue to rise, affecting not just rural areas but also urban settings. The patient care side of healthcare needs to evolve in tandem with these shifts,” says Smriti

Tandon of Online Chikitsa Mitra.

Telemedicine and mobile health applications have emerged as lifelines for rural communities. The urgent need of the hour is to establish physical health clinics in Tier III cities or implement mobile clinics, which would offer doctor consultations, medications, and pathological tests, and bridge the gap between rural patients and high-quality healthcare services available in urban areas.

“The burgeoning field of surgical robotics heralds the advent of telesurgery, poised to revolutionize the landscape of surgical care. This innovation promises to make advanced surgical procedures accessible and affordable for the rural populace, thereby democratizing high-quality healthcare,” comments Dr Vishwa Srivastava of SS Innovations.

The government’s ambitious healthcare initiatives, such as the Ayushman Bharat and Jan Aushadhi Yojana programs, are making a tangible difference. The PPP model is also playing a crucial role in improving rural healthcare accessibility. For instance, digital dispensaries in Madhya Pradesh, funded by private entities and operated by public health organizations, use hybrid internet connectivity to deliver high-quality healthcare via telemedicine. 