TV RAMACHANDRAN

Taking care of a billion pulses

With the country witnessing a steep surge in tele-healthcare consultation, its time India upped its public Wi-Fi and satellite broadband network to meet the growing need

Having to deal with COVID-19 propelled digital health adoption worldwide – far beyond what anyone could have projected, the Government of India introduced admirable initiatives to offer relief and help more Indians access essential rations, aid, and health facilities online. Access to digital health online has been a boon for many, but in particular, it benefits the more vulnerable and mobility-challenged sections of our society. Healthcare in India is one of the fastest-growing sectors, and public demand is high. However, while we are off to a great start, the infrastructure aspect is a great challenge. We need to step on the accelerator and improve our foundational infrastructure to improve the nation's overall health.

According to the digital health start-up Practo and the Telemedicine Society of India, the number of digital consultations tripled in India last year. The Health Ministry's telemedicine service e-Sanjeevani has crossed six million teleconsultations since its launch. While one may assume that demand is concentrated in the metros, the reality is that non-metros saw a huge uptake in online consultations – seven times higher than the previous year. Significantly, there was a 500% increase in senior citizens using online consultations for their medical needs. This is a demographic traditionally considered more technology averse than others. Besides digital health startups like Practo, 1mg, PharmEasy, and more, leading hospital chains disrupted their in-person-based business models to offer digital healthcare services through apps. Apollo's 24*7 app has over five million downloads on Google Play Store. They have facilitated over a million teleconsultations already since launch.

In March 2020, as soon as the COVID-19 pandemic began, it is praiseworthy that the Central Government approved telemedicine services as part of their disaster relief efforts. They issued telemedicine guidelines that permitted registered medical practitioners to treat COVID-19 patients remotely. This helped safeguard the health of patients, the medical practitioners themselves, and the rest of the hospital staff against infection. Further, this helped people locked in their homes during various lockdowns get the help they need.

Another significant initiative is the National Digital Health Mission (NDHM). The NDHM piggybacks on the overall Digital India Mission and the Pradhan Mantri Jan Arogya Yojana (PMJAY). PMJAY intends to provide cashless, contactless, paperless, and digital health insurance to all Indians, focusing on the economically vulnerable sections of our society. Previously known

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as the Ayushman Bharat Yojana, the health insurance scheme was introduced pre-COVID in 2018. It will offer beneficiaries a digital health card that allows them to use health services across any "in-network" public or private hospital around the country.

Just like the great telecom revolution of the '90s and 2000s, the NDHM's goals, when fully implemented, will bring people of all levels of means and resources together to collectively improve India's health. NDHM aims to create an interoperable digital health system across the country. Every Indian will have a unique Health ID, similar to the Aadhar number, allowing them access to digital health resources. Benefits include greater transparency regarding health records through the 'One Card, One Health' program. Patients can access health services across the country irrespective of whether they have all their medical records. In case of accidents, emergencies, or disasters, this is a great benefit. Pre-existing conditions, important prescriptions, and other information can be saved on their cards. This vital information can help medical professionals administer the right treatment and therapy.

If India wants to be considered a developed, world-leading economy, the health of the nation is directly related. Healthier families and people are more able and willing to study, work, and contribute to the economy. Our average life expectancy is 69.4 years and is less than the world average of 72.81 years – according to SRS data, Registrar General and Census Commissioner – for rural areas. In urban areas, with greater connectivity and healthcare resources, life expectancy is 72.6 years. On a positive note, our Maternal Mortality Rate (MMR) has dropped. MMR is the number of maternal deaths per 1,00,000 live births. The United Nations aims for a target of an MMR of less than 70 per 1,00,000 live births. As per the SRS, we are at a score of 113 in 2016-2018. Most of these deaths are related to severe bleeding, high blood pressure, post-natal infections, and complications during the birthing process. Many of these issues are preventable with quality and timely medical care and intervention – which access to digital health services can offer.

However, these valuable services are now available only to those with quality wired and wireless internet access and mobile connectivity, mostly in metros. We have much more work to do to help alleviate some of the burdens our health systems face. India has a very low doctor-to-patient ratio, only 0.7 doctors per 1,000 people. The World Health Organization (WHO) average is 2.5 doctors per 1,000. Dr Rajiv Kumar, Vice-Chairman of NITI Aayog stated: "One thing that has come out from the pandemic is strengthening public health infrastructure. That will be one area where extra expenditure should go."

While currently healthcare spending is only 1.2% of the GDP, the government intends to increase healthcare spending to 3% by 2022, which is a good sign. Our population demographics are also changing. According to Ministry of Statistics and Programme Implementation report 'Elderly in India 2021', there are about 138 million elderly persons in India in 2021. This number is expected to increase by 56 million by 2031 and will continue to grow in decades to come. As India's demographic begins skewing towards the elderly, there is even more urgency to make digital health accessibility a greater priority.

The NDHM intends to start a national health registry to monitor, analyze, and improve population health metrics across the country, and increase transparency across public and private health institutions. If our analytics are meant to fuel health programs, then the quality of the underlying data is extremely important. The success of this mission heavily lies in the effectiveness of data collection. After all, the adage, "Garbage in, garbage out," always holds. Our national infrastructure has to improve for data collection to be accurate, comprehensive, and hold any meaning, particularly in tier III and remote hard-to-reach areas.

Let's look at what needs to be done to further the cause of digital health for all. The PM WANI initiative

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is an excellent concept, and implementation has to be accelerated. PM WANI intends to provide affordable, high-speed broadband access to areas across India that needs them. India has over 800 million broadband, but the number of unique subscribers would probably be only about 500 million since many users in urban and semi-urban areas have multiple connections. Therefore, there is still a huge chasm between the haves and the have-nots. Home internet penetration is an extremely low 7%. Unfortunately, most educational and employment-related activities and health access online occur from our homes.

Rapidly increasing the number of PM WANI public Wi-Fi hotspots across the country can help improve this number. Additionally, private entities can apply to become a Public Data Office (PDO). Once registered, these PDOs can work on behalf of the government to offer public Wi-Fi subscriptions in their localities. Leveraging existing grassroots resources to provide public Wi-Fi in rural and remote areas is absolutely the right path forward.

Another landmark moment for India was when the Finance Minister Nirmala Sitharaman unveiled several reforms to deregulate and transform India's space and satellite sectors. Improving the satellite communication network in India is a huge driver for India's progress and digital health initiatives. Great actions/initiatives have been taken by both TRAI and DoT in recent months which will help transform the health-related digital connectivity in rural areas. An extremely conservative estimate is that India needs 2 TB for backhaul capacity. Still, in reality, we need almost 20X times that capacity to meet market demand for connectivity. There are immense opportunities ahead for the satellite communications sector.

Widening our satcom network's reach to every corner can help us get all Indians online to leverage digital health initiatives for their benefit. India currently hasonly one-tenth the number of satcom connections that the rest of Asia does and lags even more behind more developed countries like the United States. To help achieve our overall digital health mission, it is hoped that the Digital Communications Commission, our highest policy-making body for communications, accepts the TRAI's recent sets of pathbreaking recommendations for Indian satellite communications, which can surely transform this sector.

Another reason for prioritizing PM WANI and liberalising satcom in India is because the old-school plan to improve connectivity through fibre optic networks faces issues. BharatNet, the government's plan to bring 2.5 lakh gram panchayats online, is an excellent plan. But 70% of our population is in spread-out rural areas. Laying fibre cable in these areas is hard and fraught with territorial and logistical challenges.

More than 80% of Indians remain to be covered by adequate health insurance (Fitch group report). 75% of the healthcare infrastructure is concentrated in the metros. We have 8.5 hospital beds per 10,000 people – a number that has to grow. Improving our on-ground physical health infrastructure all over the country is important. Meanwhile, growing our digital communications network can help more people in rural and remote areas leverage digital health services regardless of where they live. Telemedicine offers immense potential but is dependent on the reach of not only the fixed and mobile networks, but, importantly, the critical digital infrastructure of public Wi-Fi and satellite-communication-enabled networks.

The COVID-19 pandemic exposed the strengths and weaknesses of our systems – both in healthcare and communications. It is up to us to ensure that we fortify the nation's health against future disasters, crises, and improve our overall health. 🔸

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