

# GOING DIGITAL

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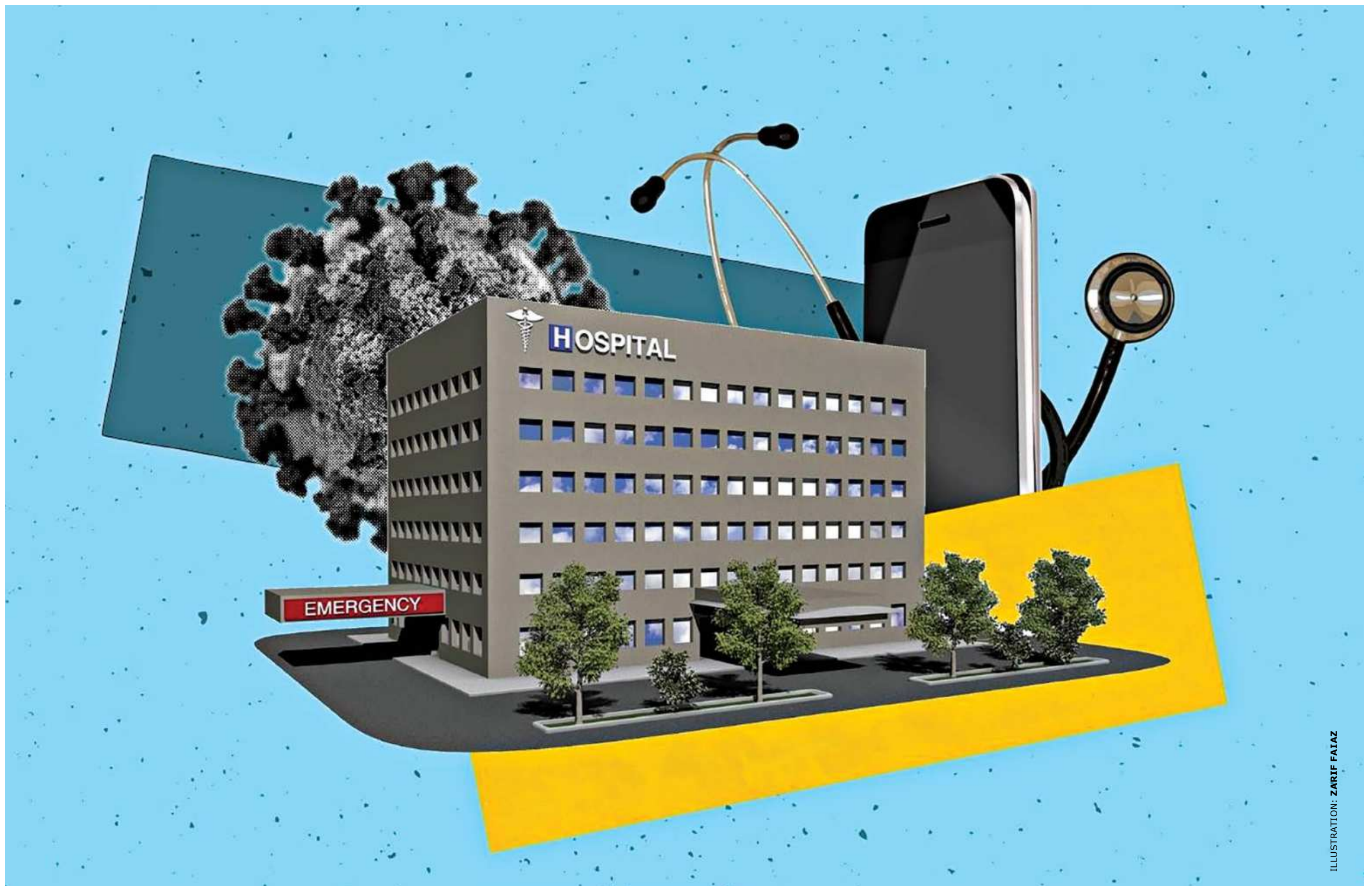


ILLUSTRATION: ZARIF FAIAZ

## Digital transformation in the health sector: Making healthcare more inclusive and accessible

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The ongoing Covid-19 pandemic has not only exposed the fragility of our healthcare system but has also made policymakers around the world rethink the healthcare systems of their respective countries. There have been growing concerns over how to make the healthcare systems better adapt to crises like this. Developing nations like Bangladesh have suffered tremendously, which makes way for a discourse on how things can be better in terms of healthcare, particularly in such countries.

While the existing problems in the healthcare sector are seemingly more prominent than ever, digital and tech-savvy solutions, like telemedicine and

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data-driven approaches are more popular as well in the times of social distancing. But can these prove to be effective in the long run in removing or fading the faultlines of our healthcare sector?

Telemedicine might have gained more popularity amidst the strictness of the ongoing pandemic, but it is not an entirely new concept in Bangladesh. Telemedicine was first introduced around 1999 by a charitable trust named Swinfen Charitable. Later in 2005, Grameen Telecom (GTC) in cooperation with the Diabetic Association of Bangladesh (DAB) launched telemedicine services, giving patients at Faridpur General Hospital access to specialist doctors of their choice in Dhaka. DAB's BIRDEM Hospital Dhaka, was connected via

a video conferencing link to DAB's Faridpur General Hospital. These earlier projects were discontinued after a while due to technical and logistical issues, resulting from poor connectivity and infrastructural support.

However, over time it's becoming increasingly convenient to properly implement this in our country, thanks to the ever growing telecom industry and increasing digital literacy among people of all spheres. As of March 2020, there are 165 million mobile connections in Bangladesh (BTRC, 2020). Compared to population numbers, that's nearly 100% penetration. There are 103 million internet subscribers, out of which 95 million are using mobile internet. That means more than 57% of mobile users are using mobile data. The number of internet users is growing at a healthy rate of 10% yearly. Bangladesh is the fifth-largest internet-using country in Asia as of 2017. More than 62% of web traffic is coming from mobile devices, roughly 32% from desktops, laptops, etc. More than 95% of mobile traffic comes from Android devices, while only less than 2% comes from iOS devices.

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For several years, Bangladesh has had a significantly low budgetary allocation for the healthcare sector. In 2017, the share of public health expenditure in the gross domestic product (GDP) was only 0.4 percent, while the averages for lower-middle-income countries and South Asian countries were 1.3 percent and 0.9 percent respectively. For the fiscal year 2021, budgetary allocation for the

health sector is 7.2 percent of the total budget and 1.3 percent of the GDP, which is far below the expectation (4 percent of the GDP in the health sector as recommended by the World Health Organisation). Bangladesh also has a very underdeveloped health infrastructure. For instance, the number of physicians per 1,000 people in Bangladesh in 2017 was 0.54, which was 0.76 in the lower-middle-income countries and 0.83 in the South Asian countries.

Inequality is a great concern when it comes to ensuring healthcare for all. Inequality in the healthcare system exists based on a lot of factors other than the socio-economic position or income status of an individual including location, age groups etc. Gender-based inequality is also quite prevalent in this sector. These factors not only affect the possibility of availing healthcare services but also affect medical help-seeking behaviour. For example, households in the upper 20 percent are three times more likely to seek medical advice when a child is suffering from diarrhoea, fever, or acute respiratory infections than households in the bottom 20 percent. Only 37% of sick children get treatment from a trained provider, with girls and the poor having lower rates. Exorbitant healthcare costs fuel the problem of inequality even further. Around two-thirds of the medical spending is done by the citizens at the time of service,

with the low-income citizens getting affected the most as a large portion of their income is being utilized in this case. There is a huge disparity in health care distribution between urban and rural areas, a large portion of people living in rural areas are deprived of modern health care facilities. The total population in Bangladesh is over 160 million (World Bank, 2018). Among them, 77% of people live in rural areas. Access to medical personnel (general practitioners), medical facilities, and equipment is unevenly distributed throughout the country.

There are two very prominent problems that stand out. Most doctors in Bangladesh are located in urban

areas due to poor infrastructure in rural health care centres and villages. Another problem is that rural citizens are required to travel long distances to access health care services which makes it costly and time-consuming. The cost is two-fold, the travelling cost and the cost of treatment.

This is where telemedicine can make a difference to some extent. By taking advantage of the developments in telecommunication and growing internet facilities, it can help provide medical facilities in remote areas where modern health facilities are limited. Telemedicine can level regional differences since the same counsel can be accessed sitting at home as from a medical facility several thousand kilometres away. This way, it can cut down on the exorbitant costs, which can be made possible through lower infrastructure costs and higher efficiency that is ensured when doctors are able to serve more patients, even remotely.

It's not feasible for telemedicine to replace physical clinics or hospitals in anyway. The goal should be to harness technology and empower doctors to fulfil their calling of helping patients, bringing down the geographic and cost barriers and making healthcare more inclusive and accessible to citizens from all spheres.

This practice can also contribute to increase mental healthcare support all over the country. The lack of mental healthcare support is highly alarming considering the statistics of the population with mental health issues. The stigma around mental health is so widespread that there are only 0.49 mental health specialists per 100,000 people in a country where 16% of the adult population suffers from some kind of psychiatric disorder. Inadequate hospitals, lack of awareness, and unavailability of follow-up treatment are a few of the major problems in this sector. This is where the trend of telemedicine can come into effect and make a difference in terms of availing counselling and widespread support for mental health issues.

Another crucial aspect is the health-related information system in the country. The Health Information Service (HIS) is still at the growing stage in Bangladesh. This implies that people are not aware of adequate health measures, preventive care, etc. BTRC's data shows that in June 2020, the total number of internet subscribers stood at 103.476 million. (BTRC, 2020) After the pandemic started, the search for Covid-19 on the internet has jumped from 50 to 70 percent across all generations. At least 361,000,000 videos were uploaded on YouTube regarding Covid-19 on April 11. In Bangladesh, people are less aware of the fact check system, and the current fact check program made for Bangladesh by Facebook is not provided by the government.

Another faultline would be years of corruption in the healthcare sector, which resulted from lack of monitoring and proper evaluation. This faultline once again became very evident during the Covid situation, when the government's response to Covid-19 proved inadequate even after getting three months for preparation. The DGHS has a scarcity of the standard epidemiological information, data, and statistics required for research purposes, planning, and policymaking. Tackling these problems requires data-driven approaches. The country's inexperience with handling and forming large databases had caused fatal inefficiency in tackling the Covid situation. Increased focus on research and development, proper record-keeping and monitoring need to be ensured. Now that the vaccination process has started, the data-driven methods of management are more important than ever. Managing and coordinating a gigantic volume of data to make sure that the prioritisation is done right and effective immunisation is induced is going to be quite a challenge, but it will also make way for a new-age of healthcare, where data-driven technologies contribute to making healthcare more inclusive and accessible at the national, regional and community level.