Social innovation rudderless
With the proposed National Strategy for Economic and Social Development seemingly discarded, this leaves no policy document to bridge scientific and socio-economic innovation. This integrated approach had been one of the strengths of Brazil’s innovation planning and policy-making. Most notably, it had driven rapid progress for multiple indicators of social inclusion (Chaimovich and Pedrosa, 2015).

There are signs that Brazil is now slipping backwards in terms of social inclusion. For example, Brazil had managed to reduce extreme poverty and food insecurity, leading the Food and Agriculture Organization of the United Nations

Box 8.1: E-health system making a difference in Brazil during Covid-19 pandemic

The digital transformation of the Brazilian health sector moved into high gear in 2017 with the publication of the E-Health Strategy by the Ministry of Health. The adoption of information technology is being encouraged to improve the Unified Health System (SUS). Medical big data and artificial intelligence are being used to develop prediction models and new drugs, as well as protocols for diagnosis and treatment. Virtual reality and remotely controlled robots are being used to train surgeons.

Hospital staff are using a range of mobile phone apps to improve patient management and care. Patient records on paper are gradually being replaced by their digital equivalent, placing a patient’s X-rays, prescriptions and medical history at the physician’s fingertips. Patients living in remote areas may also consult a doctor through telemedicine, a real advantage for a country as vast as Brazil.

Since February 2019, the Empresa Brasileira de Serviços Hospitalares (EBSERH) has been contributing to this digitization drive, in line with the E-Health Strategy and World Health Organization guidelines. Attached to the Ministry of Education, EBSERH is a state-owned company responsible for managing 40 federal university hospitals across the country. These hospitals offer free services to the local population and training for health care providers. EBSERH is the only network of federal university hospitals among the 3,526 public hospitals in Brazil.

EBSERH is also Brazil’s largest network of public hospitals, with 55,000 employees and an annual budget of over US$ 7 billion. Each year, these hospitals register about 7 million medical appointments, 300,000 surgeries and 400 organ and tissue transplants. EBSERH funds internships for 4,000 medical students and residency programmes for 10,000 new doctors and other health care professionals annually.

Hospitals sharing a common communication network
The 40 federal university hospitals managed by EBSERH share a common communication network infrastructure and a single central information system, the Electronic Health Record and Hospital Management Software (AGHU), which, in April 2019, became the only management system operating in all 40 university hospitals. It provides 18 modules, including an e-register for patients, prescriptions and medication control, information pertaining to staff, the supply chain, civil registration, vital statistics and health financing, as well as on the management of equipment, drugs and other medical supplies. The AGHU database centralizes patient information from participating hospitals. It allows for big data analysis and visualization to support decision-making, including the monitoring of epidemiological trends like Covid-19.

The database is also being used to recruit patients for research projects and clinical tests, to develop prediction models, conduct patient safety tests with regard to infections and extend telemedicine to the general population. In 2020, EBSERH was in the process of integrating the AGHU database into the Ministry of Health’s National Health Data Network (RNDS). Created in 2019, RNDS will, ultimately, group information on 110 million patients and 15 million monthly procedures. Prior to RNDS, there was almost no data-sharing among public hospitals.

Covid-19 extending national telemedicine network
The Covid-19 pandemic has provided an opportunity to extend the telemedicine services provided by federal university hospitals through the National Network for Telemedicine (RUTE), which was set up by the Ministry of Science, Technology and Innovations in 2006. It provides communication infrastructure in public universities and their university hospitals, health institutions and certified teaching and research hospitals. This has enabled the creation of around 140 telemedicine and e-health centres, providing virtual consultations and remote monitoring of patients’ health. All EBSERH university hospitals are part of this network. The law on telemedicine adopted on 15 April 2020 (13.989) has made it possible to extend this service to rural areas and remote towns. It is expected that riverside and indigenous populations in the Amazon could soon be within reach (Box 8.3).

Having a centralized system has made it possible to put contingency plans in place during the Covid-19 pandemic to cope with the demand for new intensive-care beds and personal protective equipment. Virtual infrastructure and systems have been enhanced to enable administrative teams to work from home and to accelerate the extension of telemedicine, such as through the use of call centres and chatbot robots to track cases of Covid-19 and monitor the health of patients with chronic diseases.

The global Covid-19 pandemic has shown that digital tools are no substitute for functioning health systems. However, they can strengthen health management and extend health care to vulnerable populations.

Source: Simone Scholze, Director of Information Technology at EBSERH, and Claudia Brandão, EBSERH Advisor for Information Technology Planning

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