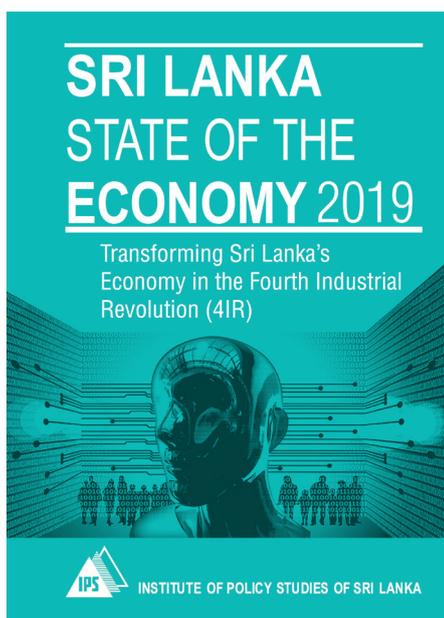




# HEALTH CARE IN THE 4IR?

From the IPS flagship publication 'Sri Lanka: State of the Economy 2019'



The health care systems of many countries face considerable challenges in dealing with demographic transformations, and to cater to the consequent emerging health care needs. To maintain the healthiness of populations and cure patients more effectively, solutions can be sought from those services beyond traditional health care services. To date, health is one of the core sectors which has been directly impacted by the radical technological shifts taking place in the contemporary world.

There are two major benefits that 4IR brings in to the health care sector through technologies. One is to prevent the disease itself (preventive care), and the other is to more efficiently manage the disease once it occurs (curative care). Both are directly related to cost savings and provide 'value-based' care. Health care is also expected to benefit considerably from this technological transformation through a progression towards more personalised and precise delivery of services. As such, health care in 4IR

undoubtedly improve health outcomes and extend life spans in the digital era. This section discusses the leading key drivers in health care in the 4IR.

### Sri Lanka's Health Care in the 4IR

According to Sri Lanka's health statistics, more than a half of medical specialists in the curative sector are to be found in the Colombo, Gampaha, Kandy and Galle districts. As such, it is a common phenomenon to find patients who are in need of medical assistance in remote areas being unable to reach particular professionals due to several reasons such as expenses that are unaffordable, unavailability of specialised doctors or surgeons, and difficulties in contacting medical specialists. This is one such area, where information and communication technology (ICT) can play a major role in country's health care services. Through advancements in e-health across the country, patient centric medical services can be facilitated to avoid or minimise

such consequences.

**An Ageing Population and Rising Demand for Long-Term Care:** As per the population census 2012, Sri Lanka's share of the population over 60 years old was 12.4 per cent. Similar estimates by the United Nations (UN) population projections show a rapid ageing of the population with the share of population over 60 years old forecast to reach 28.8 per cent in 2050 – which exceeds the average of that of many regions/countries in the world. Furthermore, the census 2012 reveals that 19 per cent of the aged 60 and above people have mobility difficulties, while 14 per cent of elders of the same cannot manage their day to day self-care by themselves. These changes will result in a rapid increase in the number dependents who needs long term care.

**Battling Growing NCDs:** NCDs are widespread among elders. As such, rising patterns of elderly population will



# 28.8%

**Over 60  
years old  
population  
forecast to  
reach in 2050**



contribute to increase the proportion of elderly with NCDs. For instance, the demographic and health survey (DHS) 2016 carried out by the DCS reveals that heart disease, high blood pressure diabetes and wheezing/asthma are mostly common among senior citizens. Further, Sri Lanka's health statistics reveal that nearly 50 per cent of total government hospital deaths are caused due to major NCDs such as cardiovascular disease, cancer, chronic respiratory diseases and diabetes mellitus. According to the same source, heart disease has been the leading cause of hospital deaths for more than a decade. To overcome such situations, strengthening the health system for early detection and management of NCDs and its risk factors are very important. Thus, the promotion of an active healthy ageing concept, focusing more on the control of modifiable risk factors to prevent NCDs and early diagnosis through screening tests, is important.

### Gaps and Challenges for Digital Health

Although the number of digital health initiatives continues to grow in the developing world, digital health is still in its infancy. This is due to several reasons including limited funding for health care, low scale of private sector health care provision, limited ICT infrastructure, etc.

Many pilot tests have not been followed by full-scale implementation due to lack of sustainable financing, limited private

## The 50% of total government hospital deaths are caused due to major NCDs



**Cardiovascular disease**



**Cancer**



**Chronic diseases**



**Diabetes**

sector participation, and inadequate willingness to pay, as a majority of people in developing countries have low disposable incomes to self-finance their health care expenditure. This limits the usefulness and long-term scalability of current efforts and investments in digital health. In most of these projects, the initial investment is quite high, and thereby constrains the involvement of the local private sector. Further, some digital health solutions are ruled out, as these do not carry a viable business model.

In a developing country such as Sri Lanka, the transfer of technology among the general public takes place at a slow pace, due to resource restrictions, lack of funds and proper infrastructure, and due to patients' low level of knowledge.

### Way Forward

Considering the required basic setup for digital health care services, multinational technology companies such as IBM and Microsoft can adopt the role of be-

ing holistic ICT and digital service partners for governments, health providers and health tech companies. Also, commercial tech players can team up with governments on existing national policy, priorities and procurement initiatives, including e-governance strategy and investment recommendations.

In addition, collaboration among digital health stakeholders is key, as individual companies do not have the whole set of required capabilities – i.e. in health, ICT, marketing strategies, and resources – to raise funding, develop ICT infrastructure, and handle distribution. To overcome these issues, some countries are in the process of developing national strategies that align digital health initiatives with ICT infrastructure and broadband plans.

Further, given the emerging health care needs and unequal distribution of resources, an appropriate e-health strategy can enhance access quality and viable health care. Therefore, measures should be taken to solve identified problems of proposed e-health solutions in order to move from a proof-of-concept of a proposed solution, to large-scale implementation in the appropriate setting.

*This Policy Insight is based on the comprehensive chapter on "Health Care in the 4IR?": State of the Economy 2019 Report' - the flagship publication of the institute of Policy Studies of Sri Lanka (IPS). The complete report can be purchased from the publications section of the IPS.*



**The HIMS is currently implanted in over 400 (63%) of health care institutions (out of a total of 635 secondary and tertiary care institutions) in the country.**



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