Sri Lanka, a country with a world acclaimed health system is 65,610 km$^2$ in size and has 22 million people. Its population is rapidly aging compared to countries with equal levels of socio-economic development. Sri Lanka is in the late stages of demographic and epidemiological transitions [1]. Sri Lanka had achieved strong health outcomes over and above what is spent on health over last 50 years. A well-established, reasonably well-functioning and robust health system in the country is credited to this achievement [1]. Further, over the years, expenditure on healthcare has grown steadily. It is reported to have grown at a compound annual rate of around 11% in the recent past, as reported by the Institute for Policy Studies (IPS). Per capita total health expenditure had risen to USD 163 in 2018 from USD 49 in 2005, according to the World Bank and National Health Accounts (NHA) of Sri Lanka [2].

On the economic front, for many years Sri Lanka’s economic trajectory was not in the correct direction. Sri Lanka had a limited fiscal space to enhance its health expenditure even under normal circumstances, even before the current crisis. Over the years total health care expenditure was about 3.5% of Gross Domestic Product (GDP) while the government’s contribution was around 2%. Moreover, out of the government budget only 8% was spent on health.

According to the IPS, Sri Lanka faced 4 main health challenges even before the current crisis [3]. In addition to that, authors wish to add a 5th challenge and abbreviate as 5Ds faced by Sri Lanka.

1) Disease burden shifts
2) Demographic Changes
3) Domestic Finance shifts
4) Donor transitions
5) Debt overhang

The nation is currently facing a challenge in terms of a transition in disease burden, whereby non-communicable diseases are increasingly contributing to the total disease burden. The country’s development endeavours are confronted with supplementary obstacles due to demographic shifts, such as a progressively aging population and diminishing fertility rates. The nation of Sri Lanka is currently encountering a situation of debt overhang, wherein the government is facing challenges in effectively managing its debt obligations. The country’s development prospects are complicated by shifts in domestic finance and transitions in donor funding, as the government attempts to navigate a dynamic landscape of funding sources and priorities. The resolution of these difficulties necessitates a collaborative effort by all parties involved, along with a dedication to the pursuit of sustainable development strategies.

The Sri Lankan economy which was already weak, suffered additional setbacks due to the 2019 Easter Sunday bomb attacks and the COVID-19 pandemic. The impact of both regional and worldwide events had a negative effect on the inflow of foreign remittance and dollar earnings derived from unskilled labourers primarily employed in the Middle East, as well as from the tourism industry. The ban of importation of chemical fertilizer overnight led to a reduction of the harvest of rice and vegetable crop by more than 50% [4] and...
due to the reduced yield of tea and rubber Sri Lanka’s competitiveness in the world trade was affected, further reducing foreign exchange earnings. Moreover in 2019, the then government introduced the largest ever tax reductions in the Sri Lankan history. This resulted in losing around one million taxpayers between 2020 and 2022, which was a severe blow to an economy which was embedded with poor tax administration and widespread tax evasion for decades [5].

In April 2022, Sri Lanka’s foreign reserves abated to less than USD 1.5 billion leading to a scarcity of foreign exchange to import even key essentials like food, petrol, and medicine. Furthermore, during the very same time frame, the overall foreign debt of the nation surpassed the amount of 51 billion US dollars. More than a half of the above debt is due to be paid by 2027.

Further, due to the domino effect, government’s revenue has declined to 8.3% of the GDP by the end of 2021 [6]. Finally, in April 2022, Sri Lanka suspended repayment of foreign debt and declared bankruptcy and started negotiating with the International Monetary Fund on a rescue package.

In order to overcome the worst economic crisis since getting independence in 1948, Sri Lanka needed to more than double the country’s tax revenue by 2026.

The Sri Lankan government has put forth a proposal for tax reforms that have the potential to substantially enhance tax revenue [5]. The proposed reforms aim to increase the current tax revenue of Rs 1.3 trillion in 2021 to Rs 3.1 trillion. The suggested reforms entail a tripling of the income tax collection from Rs 302 billion to Rs 912 billion, which may serve as a counterbalance to the expensive monetary financing that has adversely affected the overall economy [5]. The timing of these reforms is critical, given that Sri Lanka’s overall economy has experienced a decline from USD 88 billion in 2018 to USD 73 billion in 2022, and is projected to experience further negative growth in 2023 [7]. In light of the aforementioned economic context and the five challenges (5Ds), Sri Lanka’s healthcare system is confronted with a variety of concerns that necessitate prompt consideration.

**Forex crisis**

The shortage of the foreign currency will affect supply of drugs as nearly 80 - 85% of drugs used in Sri Lanka are imported. With the marked depreciation of the rupee there will be not only a shortage but also price increases as witnessed recently. The same scenario is applicable to medical instruments and equipment as almost all of them are imported to the country. Under these circumstances, developing and equipping new hospitals and existing hospitals respectively will be an enormous task.

**Training of health staff**

The Ministry of Health’s Education, Training, and Research (ETR) unit plays a pivotal role in supervising the education and training of healthcare personnel other than doctors and dental surgeons in the country. This division operates through a vast network of training schools located across the nation, with the aim of ensuring that healthcare professionals have access to high-quality training programs that are designed to improve their knowledge and skills.

The economic crisis and lack of funding have resulted in delays or suspensions of recruitment for health professional training. As a result, the consequences of the shortage of health professionals will likely manifest in the next 3 to 4 years due to the long training periods required to produce qualified health workers.

Sri Lanka is one of the very few countries in the whole world which has a mandatory overseas training component for post graduate medical trainees. UK and Australia are the most popular destinations for the overseas training for Sri Lankan doctors. The ministry of health offers a monthly stipend of 2000 Sterling Pounds or approximately 2000 Australian Dollars to trainees who are not pursuing employment and are traveling to the United Kingdom or Australia for a duration of one
year. Given the current foreign exchange crisis, the ministry has temporarily suspended payment of this allowance. This has affected the supply of medical specialists to the system.

**Increase of indirect tax - VAT**

A key component of indirect taxes, Value Added Tax (VAT), was exempted on healthcare services until 2016 in Sri Lanka. A near zero or a reduced VAT rate is imposed on essential commodities such as basic food and healthcare services in most of the countries. Recently, VAT on health services in Sri Lanka was increased up to 15%. In a country where the health insurance penetration is less than 7%, imposition of 15% VAT on Health services is unjustifiable. This is more so as 55% of the outdoor treatment in Sri Lanka is catered by the private health sector [2]. As a result, the lower middle-income group which sought health care services in the private sector, now will move into already overburdened government health care services.

The imposition of a 15% VAT on healthcare services affects the senior citizens, especially those who live with a fixed interest income. This impact is more in Sri Lanka as it has one of the fastest aging populations in Asia. There are limited medical insurance covers available for those above 65 years in Sri Lanka. Certain illnesses such as mental illnesses are not covered and chronic diseases need high premiums.

**Increase of income tax**

Like any other category of employees, the health sector employees too are badly affected by the recent income tax rise. The Sri Lankan government’s introduction of higher income taxes comes at a time when the real income of people has significantly decreased, as evidenced by the rupee’s depreciation against the USD from 200 to 370 and the high rate of inflation.

With the recent tax reforms, a person whose annual income is Rs 6 million (Rs 500,000 per month) will have to pay an income tax of Rs 1,308,000 per annum or Rs 109,000 per month. A person whose annual income is Rs 10 million (Rs 833,333 per month) will have to pay an annual income tax of Rs 2,748,000 or a monthly income tax of Rs 229,000. Expressed from another angle, the progressive tax rates rise from 2.3% to 28.7% from earners of a monthly income of Rs 150,000 and Rs 1 million respectively [5].

As doctors in the state sector receive a relatively low basic salary compared to many non-health professionals, they have been able to secure concessions and several other allowances, such as DAT allowance, research allowance, telephone allowance, extra duty payment etc. The present tax reforms have not only increased the tax rates as described above but also considers all allowances as taxable income. Many doctors believe that formal sector employees like them are taxed while many in the informal sector who earn more than them are not paying taxes.

**Increase in electricity tariff**

Health service is categorized as a 24/7 essential service. Therefore, the recent 66% increase in electricity tariffs will hurt the health sector disproportionately. The fuel prices also had been increased substantially over the last 8 months. With the meagre health budget of Sri Lanka, Rs 330 billion for 2023, whether the health sector can afford these increases in electricity and fuel prices needs to be considered very seriously.

**Rising out of pocket health expenditure and elastic demand for certain health care disciplines**

The very high rate of inflation seen in the economy may eventually translate to higher prices for medical care, potentially leading to higher health spending and steeper rise in already high out of pocket health expenditure, which may even lead to catastrophic health expenditure.

In health economics, generally medical care is considered as having an inelastic demand. However, as described by Sherman Folland, Allen C. Goodman, and Miron Stano in their book titled ‘The Economics of Health and Health Care’ 8th edition (2017), few medical services, for
example certain aspects of plastic surgery, dental surgery and dermatology have elastic demand. Therefore, in an economic downturn, above medical disciplines will be “hit” harder than the other medical disciplines, especially in the private sector.

**Mental health and nutrition of the children**

As reported in Lancet-Regional Health South Asia, the current economic crisis in Sri Lanka has majorly affected the mental health of the people, especially the children. Long closure of schools had led to behavioural changes in children. Regular power cuts had hindered online teaching and learning [8]. The economic crisis has already affected the nutritional status of our children. The poor nutrition status and reduced education attainment would have long term consequences on the country’s economy and development.

**Feminization of health workforce**

More women are attending medical school and becoming doctors. Currently, Sri Lanka has around 7500 medical students in the training pathway out of which nearly two thirds are females [9]. This trend is predicted to further increase. The Ministry of Health is the key employer for the doctors in Sri Lanka. Therefore, there would be a highly increased number of female doctors in the Ministry of Health in the near future.

Nevertheless, 4 main specialties of medicine, surgery, paediatrics and gynaecology are still dominated by males. However, this trend is fast reversing, though surgical subspecialties (Neurosurgery, Orthopaedics) are markedly male dominant. Further, laboratory based diagnostic subspecialties (histopathology, haematology, microbiology) are already feminized.

The authors foresee a future shortfall of male-dominated surgical trainees, as medical school graduates are becoming more feminized. This scarcity would stymie the establishment of the intended apex hospitals at the district and provincial levels in the pursuit of better universal healthcare coverage. As the medical profession is getting feminized, there could be increased competition among female doctors to enter the specialties dominated by females in the future.

Female doctors in the Sri Lankan health sector are balancing a professional life with family and other interests, as is the trend in the global labour market. Part-time, flexi hours and shift work are expected to become increasingly popular as more women seek time off for childcare and breastfeeding. Sri Lanka health policy makers should take serious note of feminization of the medical doctor workforce and act proactively.

**Outmigration of health staff**

Several health-related SDGs including universal health coverage will depend on the quality, skill mix, fair distribution, and adequacy of health workers.

As per WHO, by 2030, eighty million health workers will be needed globally. However, the supply of health workers is expected to be only around 65 million: creating a global shortage of 15 million health workers [10].

From a conceptual perspective, macrostructural and individual variables encourage health worker migration from resource-limited countries. Low salaries, poor working conditions, safety concerns, unstable and weak governments, poor educational and professional prospects specially for children are the major causes for out migration of skilled health workers. Within the context of global health workforce shortage, out migration of health workers from low- and middle-income countries to high income countries such as UK, USA, Australia is inevitable. This would further undermine the health services of the countries, with economic crisis like in Sri Lanka.

Given the above situation health care professionals including medical specialists, doctors and nurses tend to seek greener pastures now, more than ever.

Though there are different reports indicating different numbers of doctors who have already
“migrated”, the authors are of the view that our main “loss” comes from post graduate trainees who were already abroad in 2021/2022, undergoing their post MD training. Normally per year around 270-280 specialist trainees go abroad and around 250-260 return. However, in the year 2022 only a little more than 100 had returned.

A very reliable report from the Ministry of Health indicated that 304 medical officers had taken long term leave in 2022 and 136 medical specialists have taken long term leave or served vacation of post between 2017 and 2022. However, these figures may be grossly underreported as many doctors and specialists go abroad after taking short term leave or some without obtaining official leave at all. In the current system, serving of “vacation of post- VOP” takes a considerable time. Loss of highly trained medical workforce will be detrimental to the already resource limited health care system of Sri Lanka.

Retirement age for public servants

The retirement age was 60 for all government servants until 2019. Then it was increased to 63 for the specialist doctors due to the perceived shortage of medical specialists. Further, in response to the demands by the doctors’ trade union, the age of retirement of doctors was raised to 61. Subsequently, an extraordinary gazette extended the mandatory retirement age for all public service medical officers up to 63 years of age.

Thereafter, the public sector retirement age for all categories including health workers was increased to 65 years on 20th January 2022 by the government headed by President Gotabaya Rajapaksa. However, the current President, Ranil Wickremesinghe’s 2022 interim budget proposed lowering the retirement age of public sector and semi-governmental employees to 60 years.

In Sri Lanka, deployment of health staff is based on service seniority and the staff are transferred after a maximum of 4 years service at a particular station/hospital. An officer with more service seniority could request and obtain a placement in a hospital in a big city. Due to this system, most of the senior and experienced staff are working in hospitals in big cities. Therefore, the hospitals in big cities will be the most affected, from the sudden reduction of mandatory retirement age.

Around 700 medical officers, 160 medical specialists and 3200 other categories would have retired by the end of December 2022 if not for an injunction order of a court regarding the retirement age. The court case is still pending.

Furthermore, many authors have commented on the Sri Lankan economic crisis from different perspectives. According to S Bandara, due to the present crisis scenario, worsening socio-economic landscape and human rights violations remain substantial threats to health in Sri Lanka [11]. Das speaks of effects of shortages of cancer drugs [12]. Matthias and Jayasinghe highlight the effects of stress and lack of health care on the increase of cardiovascular morbidities, importance of cost-effective interventions and establishing a stronger social protection system to help cope with escalating out-of-pocket expenses [13].

In summary, the health system of Sri Lanka is facing multiple crises that have mainly originated from sectors outside of health. The robustness of Sri Lanka’s healthcare sector can be ascribed to several factors, such as substantial investments in healthcare infrastructure and a skilled workforce, a prolonged tradition of dispensing universal health coverage, a potent public health system that prioritizes the disease prevention and timely detection, efficacious healthcare policies and initiatives, and a resolute political commitment to the healthcare sector. Another factor is probably the strong formal and informal social networks accessible to the patients. These networks are able to cushion external shocks by providing financial support to purchase services or goods from other
sectors. The aforementioned factors have played a significant role in enhancing health outcomes and the general welfare of the populace, thereby giving Sri Lanka’s healthcare system with the capacity to endure multiple challenges. Authors expect its resilience will help it to overcome the current economic crisis and return to its past glory soon.

**Author Declaration**

**Author contributions:** DDeS designed and developed the concept, developed the manuscript and did the final editing. SDeA provided guidance and overall support to the project and revised the manuscript. PA attended to manuscript reading and other editorial support.

**Competing interests:** The authors declared no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

**Funding:** None

**Acknowledgement:** Authors would like to acknowledge Ms Indra Liyanage attached to the Additional Secretary - Medical Services Office.

**References**


