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# Coronavirus disease 2019 and noncommunicable diseases: Lessons learned so far and implications for the future

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## Full Text

As on December 08, 2020, there were 67,210,778 confirmed coronavirus disease 2019 (COVID-19) cases and 1,540,777 deaths across the world. [1] The United States (US) had the largest number of 14,949,299 cases and 283,703 deaths. India had the second largest number of 9,703,770 cases and Brazil had the second largest number of 177,317 deaths.[1] The infection fatality rate ranged from 0.05% in Singapore to 9.3% in Mexico. The number of deaths per 100,000 population ranged from 0.03 in Taiwan to 152.21 in Belgium. China, where the pandemic originated, had 93,670 cases and 4746 deaths, providing an infection fatality rate of 5.1% and a death rate of 0.34/100,000 population.[2] These data indicate a huge variation in the number of cases and death rates due to this pandemic globally. There were several success stories including New Zealand, Thailand, and Vietnam in managing this disease. COVID-19 mortality was negatively associated with the number of tests and effectiveness of the governments, which could be one of the reasons for these success stories.[3]

The strong linkage between COVID-19 and noncommunicable diseases (NCDs)[4] is a challenge for achieving the sustainable development goals (SDGs), particularly those related to NCDs.

Seventy-one percent of all deaths in 2016 were due to NCDs in the world. Around 85% of these deaths below the age of 70 years (premature deaths) were in low- and middle-income countries. One of the SDG targets is to reduce these premature deaths. However, even before this pandemic, the progress toward this goal was slow. After COVID-19, the mortality rates have been highest in the older population and among those with major NCDs such as cardiovascular diseases, chronic respiratory diseases, cancers, and diabetes. As per a recent study by the World Health Organization (WHO), 22% of the world's population have a disease condition that increases the risk of COVID-19 deaths and a majority of these conditions are NCDs.[4] Around 80% of deaths in the USA were reported to be in the age group of 65 years and older, and there was an increasing trend in the mortality rates due to COVID-19 commensurate with an increase in age.[5] Earlier studies from China and other countries have reported higher mortality rates among patients with diabetes[6] and cardiovascular diseases.[7] Patients on treatment for cancers were also reported to have higher mortality rates.[8]

Studies on the impact of COVID-19 among patients with chronic respiratory diseases are limited. Among the risk factors, obesity was associated with higher mortality among COVID-19 patients. Tobacco use, another major risk factor for NCDs, adversely affects COVID-19 patients in different

ways.[9]

COVID-19 will be an obstacle that prevents countries from achieving many of the United Nation's SDGs such as the one to reduce premature mortality from NCDs. The WHO recently reported that NCD services including prevention and treatment were severely affected in 75% of the countries studied.[4] Hypertension treatment was affected in 53%, treatment for diabetes and its complications in 49%, cancer treatment in 43% and cardiovascular emergencies in 31%.[4] In 94% of the countries assessed in the above study, staff working in NCDs were partially or fully reassigned to COVID-19 activities.[4] All the countries affected by this pandemic need to improve their health systems in order to address the existing and emerging NCD problems. There needs to be efforts from governments, nongovernmental organizations, and other community groups to strengthen health services for addressing NCDs. Task shifting and task sharing of NCD services such as monitoring of blood pressure and blood glucose for the management of hypertension and diabetes, respectively, could be done with appropriate supervision so that grassroots-level health workers and other community-based volunteers will be able to take up these tasks, making access to a large number of people with these conditions easier.

The COVID-19 pandemic is anticipated to cause the highest global recession after the Second World War, resulting in huge unemployment and impoverishment of many people, particularly in low- and middle-income countries.[10] This is likely to affect disproportionately the vulnerable population in the world, limiting access to health services for the poor. Most NCDs incur catastrophic health expenditure. For example, every year, 55 million people in India are pushed into poverty due to health expenditure, mostly for NCDs.[11] The United Nations Development Program reported that the global human development index based on health, education, and income is likely to reverse for the first time after 1990.[12] COVID-19 will have a huge impact on NCDs because of limited access to care, financial difficulties of a large number of people to afford care, and complications resulting from this pandemic among NCD patients. This is likely to adversely affect the SDG agenda globally in varying degrees, particularly the agenda on health and well-being. The WHO may be expanded and the sentence may be revised as given below to bring more clarity. NCDs must be a vital part of the response to COVID-19 recovery at global, national, sub-national, and district levels to accomplish the SDG targets by 2030. The division of diseases into communicable and noncommunicable may not be appropriate for managing them as we learned from the experience of this communicable disease pandemic that had devastating effects on people with NCDs. Restoring the significance of health into the center of development agenda focusing on public health is another lesson from this pandemic. Because most of the NCD risk factors and their control are outside the health sector, it is more important to restoring the significance of health into the center of the development agenda in all countries.

In addition to the respective governments' role in improving health systems, there is a need to strengthen the WHO. The role of the WHO as the highest technical body on health issues in the world providing support to all member countries is extremely important. Supporting the World Health Organization by the major funders such as the United States is also critical. There were problems with the WHO and the USA in the management of COVID-19 initially, indicating the USA's withdrawal from the WHO. Fortunately, the new president elect of the USA has announced that the USA will remain a member of the WHO and make sure that the WHO is adequately resourced.[13] Cooperation between and within countries rather than conflict will help all countries around the world to better address major health problems in future.

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