

Preventing a Post-Pandemic Double Burden of Disease in the COVID-19 Pandemic

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Abstract

As the world focuses on containing the spread of the coronavirus disease 2019 (COVID-19) and limiting the effects of the pandemic on the global population, care must be taken not to lose sight of existing individual health issues. There is a real risk of creating a ‘post-pandemic double burden of disease’ – where the pressures of having to manage acute COVID-19-related impacts on the health system are added to the existing burden of chronic non-communicable diseases or long-term conditions in developed countries. This could create a post-pandemic health crisis by devoting less attention to existing health conditions. A growing evidence base from other epidemics and health emergencies highlight the potential negative impact of short-term health crises on long-term public health. The significant disruptions to the usual healthcare systems and society can lead to increased morbidity and mortality in the long-term if not managed appropriately. This viewpoint provides an overview of the evidence to support the management of long-term conditions during, and after, health emergencies, to limit the impact of COVID-19 on public health in the short- and long-term.

Keywords

health care, public health, double burden of disease, long-term conditions, post-pandemic, COVID-19

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Introduction

As the world focuses on containing the spread of the coronavirus disease 2019 (COVID-19) and limiting the effects of the pandemic on the global population, care must be taken not to lose sight of existing individual health issues. There is a real risk of creating a ‘post-pandemic double burden of disease’ – where the pressures of having to manage acute COVID-19-related impacts on the health system are added to the existing burden of chronic non-communicable diseases or long-term conditions (LTCs) in developed countries. This could create a post-pandemic health crisis by devoting less attention to existing health conditions.¹

During a pandemic, there are significant disruptions to the usual healthcare systems and the way society functions, as resources are diverted to focus on immediate pandemic-related events and restrictive measures such as region- or country-wide lockdowns are put in place. In the face of a health emergency such as the current COVID-19 pandemic, it is easy to neglect the

management of more ‘routine’ health conditions, both at an individual and societal level.

Management of Long-term Conditions at the Individual Level

For individuals, the key messaging they have received from government bodies and global health organisations is to ‘stay home’ and ensure social distancing and hand hygiene.² Usual healthcare interventions to promote healthy living and optimise self-management of long-term health conditions (LTCs) have understandably

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taken a lower priority to COVID-19 management. Yet evidence shows that ongoing optimal management of LTCs remains of utmost importance, regardless of the situation. People with pre-existing LTCs are at a greater risk of having worse outcomes or more severe disease if infected with the coronavirus.³ Moreover, COVID-19 outcomes are affected by how well the individual has managed their LTCs. For example, previous data from other pandemics suggest that uncontrolled glycaemia is a significant predictor of disease severity and death⁴ and high fasting plasma glucose is an independent predictor of diabetes.⁵ Although current data in this field are limited, data that does exist support giving LTCs almost equal attention to acute pandemic responses, since sub-optimal management of existing LTCs may lead to poorer outcomes. Supporting patients to self-manage LTCs is arguably more important during the COVID-19 pandemic than it was before. This is necessary in the short term to minimise the effect of poorer COVID-19 outcomes among those with pre-existing LTCs and to avoid the knock-on effects of sub-optimal self-management on future health.

At an individual level, patients with LTCs should continue to receive the support necessary to maintain their motivation and ability to continue to manage their condition effectively.⁶ Disruptions to daily routines and new competing demands on an individual's time (e.g. changes to accommodate work-from-home arrangements and managing family/child-care commitments) can reduce their motivation and ability to self-manage LTCs. Usual medicine-taking routines may be interrupted, which can lead to poorer medicines adherence, or complete discontinuation of medicines. Conditions that require regular self-monitoring such as blood glucose testing in diabetes, peak flow monitoring in asthma, and daily weighing in congestive heart failure may be compromised, as well as the ability to undertake activities that promote general health and wellbeing such as exercise and healthy diets.⁷ These disruptions can translate to increases in stress which in itself can lead to adverse health outcomes,⁸ particularly negative impacts on cardiovascular health.⁹

Management of Long-term Conditions at the Societal Level

Beyond direct COVID-19-related risks, the societal disruptions arising from pandemics can adversely affect the outcomes of LTCs.^{10,11} Crises disrupt routine management of health conditions at all levels. At a societal level, when countries transition to and from periods of lockdown, healthcare is less accessible for many.¹² Health resources are redistributed to focus on acute pandemic response with a reduced capacity to deliver routine care

due to service closures or reduced hours, and fewer staffing.¹³ There may be disparities between population sub-groups in their ability to adapt to new models of care delivery, for example differences in ability to engage with online or remote health consultations¹⁴; filling electronic prescriptions; accessing home delivery of medicines.¹⁵ This could contribute to widening health gaps and inequities between communities, and worsen existing disparities in vulnerable or minority populations, as it impacts on access to both health consultations and medicines supply. Even when healthcare services are available, individuals may avoid or delay using required health services due to fears of infection from visiting health practitioners,¹⁶ concerns about burdening a stretched health system, or personal beliefs that their health issues are 'trivial' compared with COVID-19 related issues.¹⁷

Evidence from studies of population health status after natural disasters suggest that some LTCs – particularly cardiovascular conditions, and diabetes – are worsened after major crises.¹⁸ Computational models using data from the Ebola outbreak in 2014-2015 estimates that a 50% reduction in access to healthcare services led to over 10,000 additional deaths.¹⁹ How relevant these data are to population health after this current pandemic needs further exploration; early evidence suggests the effects of the pandemic are likely to lead to increases in metabolic and mental health conditions^{7,20} as a consequence of the self-isolation and lockdown measures if preventive actions are not taken now.

Conclusion

As countries transition between periods of full lockdown and measures with fewer restrictions, there is an urgent need to refocus health care priorities to ensure essential health services are maintained²¹ and ongoing management of LTCs are supported,¹ so communities stay well in the post-pandemic phase.²² This is particularly important when health systems begin to resume usual services, so that healthcare systems in developed countries are not overwhelmed with a double burden of disease from COVID-19-related events and from managing the consequences of LTCs that have been neglected during the pandemic.

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