

A National Strategy for COVID Response and Pandemic Preparedness Must Address Noncommunicable Chronic Diseases



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Two years after the World Health Organization declared the SARS-CoV-2 outbreak a global pandemic on March 11, 2020, the virus persists and is evolving in unpredictable ways. The prospect for returning to normalcy after vaccines became widely available in the United States (US) in early 2021 was quickly shattered by surging COVID cases due to the Delta and Omicron variants. US medical and public health leaders, including former members of President Biden's COVID-19 Advisory Board, are now openly discussing a national strategy for a “new normal” of life with COVID.¹ There are calls for increasing investment in biomedical research, developing variant-tailored and universal vaccines and therapeutics, and rebuilding and sustaining a robust and agile pandemic preparedness infrastructure for testing, surveillance, and mitigation.

We see the proposals for a “new” national strategy as failing to learn two key lessons of the first two years of the pandemic. Starting from the first wave of the pandemic, surveillance data from the US Centers for Disease Control and Prevention (CDC) have highlighted (a) markedly increased risks of COVID-19 severity and mortality among persons with underlying noncommunicable diseases (NCDs), and (b) disproportionately high case rates and deaths among people of color and underserved communities. For example, nearly 95% of US adults hospitalized with COVID-19 between March 2020 and March 2021 had an underlying condition. Hypertension, dyslipidemia, and obesity were the most common, while obesity, diabetes with complication, anxiety disorders, and the total number of conditions were the strongest risk factors for

COVID deaths.² Additionally, recent studies indicated vaccinated people with breakthrough infections were 44 to 69% more likely to suffer severe outcomes if they had NCDs such as pulmonary disease, liver disease, kidney disease, neurologic disease, diabetes, or cardiac disease.³ There is conclusive evidence these and additional NCDs, as well as risk behaviors such as smoking, substance abuse, and physical inactivity, confer higher risk for severe COVID-19, based on systematic and meta-analytical reviews.⁴

The collision of NCDs and COVID-19 meets the definition of a syndemic, which “is not merely a comorbidity. Syndemics are characterized by biological and social interactions between conditions and states, interactions that increase a person's susceptibility to harm or worsen their health outcomes. In the case of COVID-19, attacking NCDs will be a prerequisite for successful containment,” Dr. Richard Horton wrote in a *Lancet* commentary in September 2020.⁵ COVID-19 and NCDs are linked due to multilevel, multifactorial influences including pathophysiological mechanisms, behavioral and environmental risk factors, and social determinants of health, as well as complex interactions among these influences.⁶ In the US, longstanding epidemics of multiple NCDs have created high susceptibility to severe and fatal COVID-19 outcomes and contributed to racial and ethnic inequities in those outcomes. Yet, calls for urgent action to tackle NCDs as an integral component of pandemic control have been ignored and are absent in recommendations for “new” national strategies, which so far do not propose to reduce population risk or inequalities by improving control of NCDs. Recent high-profile proposals for a national strategy for a new normal remains largely a reactive approach driven by the latest crisis.

At this critical point in the pandemic, moving from crisis to control, failure to address NCD control and prevention as a national priority is unacceptable because it contradicts compelling evidence and misses the opportunity to use a whole set of effective intervention approaches that can save lives. The window of opportunity is fleeting, and the consequences of inaction could be devastating by allowing continuation of high vulnerabilities for severe and inequitable outcomes of NCDs and future infectious disease pandemics. Here we suggest some practical, immediately actionable steps that would

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incorporate NCD prevention and control within existing infrastructures and policies for COVID-19. Recognizing that most medical and psychological chronic conditions (e.g., hypertension, diabetes, COPD, depression) are highly treatable but undiagnosed and often poorly managed, healthcare systems could prioritize screening for these conditions so appropriate nonpharmacological and drug treatments could be initiated. Such screenings should take place not only in traditional medical settings but in homes and at COVID-19 testing and vaccination sites at worksites, schools, shopping centers, and community organizations that are distributed throughout the country. A nationally coordinated effort to disseminate proven lifestyle and behavioral health programs, such as the CDC's National Diabetes Prevention Program and mental health resources, could leverage the national infrastructure mobilized for vaccine promotion and distribution. National campaigns for COVID self-protection should expand the messaging to promote healthy lifestyle and mental well-being along with vaccination and masking. Partnerships between medical systems and community-based organizations and efforts by public and private insurers for the COVID emergency response could be built on to facilitate integration of behavior change interventions into routine healthcare delivery and coverage. Partnering with community-based organizations and policy makers would be essential for prioritizing under-resourced populations and communities of color and dismantling structural racism and related upstream determinants as root causes of inequities⁷ in NCDs in general and in severe and fatal COVID-19 outcomes.

NCDs are driven largely by the high-prevalence behaviors of smoking, unhealthy eating habits, and physical inactivity. Each of these behaviors reduces effectiveness of the immune system, causing chronic inflammation that manifests in NCDs, which exposes individuals to increased risk of severe outcomes from viral infections such as COVID-19. Changing each of these behaviors is challenging, but evidence-based approaches are available for all of them. Changing the environmental and policy contributors to these behaviors can be complex and require persistent effort, but this should not be an excuse for inaction, especially during a syndemic. We propose that improved national strategies for syndemic control include serious plans and funding to educate health professions and the public about the benefits of health behaviors against viral infections and to help Americans adopt healthy lifestyle changes and overcome social determinants of health to reduce their risk of both COVID-19 and common NCDs. Policies to improve environmental and socioeconomic conditions, increased investment, and sustained efforts to overcome racism, classism, and poverty are required to improve population health and health equity.⁷

NCDs and related behaviors may not appear to warrant similar urgency amid the most severe viral emergency in a century. However, the clear evidence of a syndemic

underscores the shortcomings of deprioritizing NCDs and the missed opportunities of not promoting behavior change. Another barrier to effective action could stem from professional silos where infectious disease experts who are leading pandemic responses lack knowledge and expertise in NCD management and behavior change. Many medical and public health experts are specialists in infectious diseases *or* NCDs, based on taking degree-specific courses, pursuing specialty or subspecialty training, and belonging to separate formal and informal professional communities. We call on leaders in government, medicine, and public health to convene experts in infectious diseases, NCDs, and health behavior (also known as behavioral medicine) to jointly develop national strategies that are commensurate with the challenges of the syndemic that has had such catastrophic global impacts over the last two years. We hope the current syndemic stimulates a reconsideration of how we conceptualize, research, prevent, and treat the multifaceted diseases that are now part of our “new normal.”

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