

Long-term mass population effects of the COVID-19 pandemic: a long way to go

Efeitos populacionais em massa a longo prazo da pandemia de COVID-19: um longo caminho a percorrer

Efectos masivos a largo plazo de la pandemia de COVID-19 en la población: un largo camino por recorrer

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The COVID-19 pandemic has been referred to as one of the most impacting, mass disabling events in the recent public health history, emphasizing the long-term direct effect on those experiencing the disease and the implications for health policy and planning ^{1,2}. Alternatively, the term “mass deteriorating event” has been proposed, considering the long-term consequences of COVID-19 may present via a broad range of symptoms, from feelings that your health was better before the infection to permanent impairment ^{3,4}. Long-term effects, referred to as long-COVID or post-acute sequelae of SARS-CoV-2 infection (PASC), need a multidisciplinary research approach to inform the prevention and care of those affected ^{4,5,6}.

However, the influence of pandemics are potentially disruptive, directly and indirectly affecting the population’s health ⁷. The COVID-19 pandemic might not be different from other pandemics, but there is still a long pathway to go through in order to evaluate if COVID-19 impact will be worse. Beyond the immense numbers of acute and PASC cases and deaths, the COVID-19 pandemic is likely to have also affected the delivery of preventive programs, such as immunization and cancer screening, as well as the continuous care of chronic conditions, such as diabetes ^{8,9,10,11}. The magnitude of such indirect effects on the population’s health is still to be verified. However, a modeling study suggests that, without adequate mitigation strategies, a 12-month delay to mass drug administration due to the COVID-19 pandemic could result in up to a 2- to 3-year delay in reaching the agreed public health targets for some neglected tropical diseases, such as schistosomiasis, trachoma, lymphatic filariasis, and onchocerciasis ¹².

Cioffi & Cecanecchia ¹³ explore this issue, focusing on the effect of the COVID-19 pandemic on vaccination coverage, specifically against measles. As the authors noted, the number of measles cases has already increased in the first two months of 2022 compared to the same period in 2021 ¹⁴. Indeed, as of April 1st 2022, 43 countries have postponed at least one immunization campaign since the onset of the pandemic, 19 against measles, putting millions of children at risk ¹⁴. Unfortunately, insufficient vaccination coverage due to postponed or canceled campaigns extend to other diseases, such as meningitis, polio, yellow fever, tetanus, and diphtheria ¹⁵.

Since the 1980s, Brazil has shown stable high vaccination rates, reducing the burden or elimination of many vaccine-preventable diseases such as poliomyelitis, tetanus, pertussis, and measles ¹⁶. However, a decrease in immunization coverage against measles to values below the recommended

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target and variations in the levels of homogeneity of coverage have been noticed since 2016, years before the COVID-19 pandemic^{17,18}. Such a scenario was implicated in the 2018 outbreaks following mass migration from Venezuela, only two years after measles was eliminated in the Americas^{17,18}. Similar situations have been detected for poliomyelitis, tetanus, pertussis, diphtheria, and meningitis. Such failure in maintaining high immunization rates is likely related to multiple factors, such as inadequate planning, delay in delivering vaccines, inadequate communication strategies, and an increase in vaccine hesitancy.

Cioffi & Cecannecchia¹³ highlight the significance of financing and strengthening health systems to deal with the disruption caused by the COVID-19 pandemic. This is undoubtedly true, but mitigation and recovery strategies should also consider that, although the COVID-19 pandemic is certainly a significant driver of health disruption, it cannot be fully accountable for all post-pandemic health problems. In Brazil, for instance, the COVID-19 pandemic reached an already vulnerable and impoverished population, with high levels of social inequalities, high unemployment rates, and economic austerity measures leading to a substantial decrease in social policies funding. Such a perfect scenario was built upon a chronic underfunding of the Brazilian Unified National Health System (SUS), which provides free and universal health care to the Brazilian population. The panorama can be better conceived as a syndemic in which the COVID-19 pandemic interacted with different sources of health, social and environmental vulnerabilities, deepening the country's already substantial social inequalities and boosting the adverse effects of all factors on the population's health¹⁹.

Another interesting question raised by Cioffi & Cecannecchia¹³ is the possibility of considering the governments responsible for the negative outcomes since some effects of the pandemic could be predicted and avoided. Indeed, the catastrophic response of the Brazilian Federal Government to the COVID-19 pandemic was characterized by misguided actions and deliberate inactions²⁰. This failure to adequately respond to the pandemic is frustrating, since several negative outcomes could have been avoided. After all, Brazil has the SUS, with a large installed capacity of primary, emergency, and hospital health care units. SUS has a Family Health Program and a network of primary health care units covering about two-thirds of the population, with great territorial range. Furthermore, Brazil has an epidemiological surveillance system with experienced and qualified professionals; a comprehensive health information system covering deaths, hospitalization, and infectious diseases; a structured information system on deaths and hospitalizations due to acute and severe respiratory syndromes; an economic-industrial health care complex prepared for the production of diagnostic tests, medical equipment, medicines and vaccines; and an active and well-trained scientific community. Therefore, those who were responsible for protecting the lives of the population and failed to act according to basic principles of science and public health should be judged and held accountable for the thousands of deaths and long-term health issues fostered directly and indirectly by the pandemic whether during the COVID or in the coming years^{20,21}.

Additional information

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