

The Invisible Face of COVID-19

La cara invisible de la COVID-19

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The COVID-19 pandemic has left indelible marks on the global landscape, disrupting lives, economies, and health systems. The immediate, visible consequences of the pandemic include overwhelmed healthcare systems, with hospitals stretched beyond capacity, leading to delayed care and strained resources^{1,2}. Staggering mortality rates became a grim hallmark as COVID-19 claimed millions of lives worldwide. Economically, global lockdowns disrupted supply chains, shuttered businesses, and caused massive job losses, plunging countless families into financial insecurity³. The urgency of vaccine development and distribution brought hope and highlighted disparities in access, underscoring systemic inequities between high- and low-income countries. While these visible effects dominated public discourse, they represent only part of the pandemic's multifaceted impact.

A significant portion of its impact remains hidden beneath the surface⁴. These invisible damages, often overshadowed by immediate crises, have profound implications for public health and societal resilience. Understanding these hidden consequences is essential to formulating effective recovery strategies and building resilience against future crises. Addressing both visible and invisible impacts is crucial for constructing a comprehensive narrative of the pandemic's effects and implementing holistic solutions.

The pandemic's less apparent consequences, or invisible damages, pose equally significant challenges. These include

disruptions to healthcare systems, widespread mental health struggles, food insecurity, increased violence, and profound shifts in mourning practices. Another semi-invisible problem is long COVID, which refers to the lingering health issues experienced by individuals after recovering from the acute phase of the illness. Symptoms such as fatigue, cognitive difficulties, and respiratory problems persist in many, impacting quality of life and placing additional strain on healthcare systems. Understanding and addressing long COVID is essential to mitigating its long-term effects.

The overwhelming focus on COVID-19 led to the postponement of non-COVID-19 care, creating a backlog of untreated chronic conditions and delayed diagnoses. Elective surgeries were cancelled, routine screenings were missed, and follow-ups were deferred. For diseases such as tuberculosis, which require timely diagnosis and treatment, these delays have had serious repercussions⁵⁻⁷. Early indicators suggest a resurgence in tuberculosis and other infectious or chronic diseases, potentially reversing years of progress in disease control. This deferred healthcare crisis highlights the fragility of healthcare systems and the need for robust planning to balance emergency response with continuity of care.

The psychological burden of the pandemic has been unprecedented. Healthcare workers bore a particularly heavy burden, grappling with burnout, stress, and post-traumatic stress disorder.

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der⁸. Frontline workers faced the dual challenges of infection risk and the emotional toll of witnessing immense suffering and loss. Anxiety, depression, and grief surged across the general population, affecting individuals who lost loved ones, experienced prolonged isolation, or faced economic uncertainty⁹. Research conducted by our team in Portugal revealed that nearly 30% of individuals experienced anxiety symptoms (mainly women, younger – 18-30 years – and with a master's degree or superior), while 7% reported depressive symptoms¹⁰. These mental health challenges underscore the urgent need for comprehensive support systems to address both individual well-being and broader public health resilience.

Food insecurity emerged as another critical issue during the pandemic. Disruptions in supply chains, income losses, and rising food prices left many families struggling to access food security. Our research revealed strong correlations between food insecurity, income reduction and mental health challenges, particularly anxiety and depression¹¹. Showing that participants with anxiety symptoms had an increase of 4.10 odds (95% CI: 1.69–9.92) of belonging to a food-insecure household. These findings emphasise the intersection of economic, social, and health determinants, underscoring the importance of holistic responses. Addressing food insecurity requires coordinated efforts at local, national, and international levels. Immediate actions should directly assist needy families (e.g. low-income households, informal workers, and marginalised groups who are disproportionately affected). At the same time, long-term strategies must address systemic inequities in food systems and fair access to safe, nutritious, and affordable food for all.

The pandemic created an environment conducive to domestic violence. Lockdowns and social restrictions, while necessary to curb viral spread, trapped many victims at home with their abusers and severed their access to support networks. Reports of abuse surged worldwide, exacerbated by economic stressors, isolation, and heightened tensions. Research from our team highlighted that psychological and emotional violence was the most common type of intimate partner violence, affecting 36% of respondents. Men showed higher odds of experiencing psychological violence, while older participants and those with depression symptoms were particularly at risk¹². Addressing this hidden epidemic requires a multi-faceted approach, including legal protections, expanded support services, continuous work on destigmatising violence in men, and public awareness campaigns aimed at breaking the silence surrounding domestic violence.

The pandemic also reshaped how societies grieve. Restrictions on gatherings meant many could not hold traditional funerals or access communal support during loss^{13,14}. This disruption

has led to prolonged grief disorder, with affected individuals experiencing heightened levels of anxiety and depression. Research from our group found that individuals experiencing prolonged grief disorder had significantly higher rates of comorbid anxiety and depression¹⁵. Tailored mental health interventions and culturally sensitive approaches to mourning are crucial to addressing this hidden burden. Recognising and validating the experiences of those affected can foster healing and resilience in individuals and communities alike.

A comprehensive and coordinated response is essential to mitigate the long-term impacts of the COVID-19 pandemic. The lessons learnt must inform preparedness for future crises, integrating visible and invisible challenges into recovery strategies.

Mental health must be fully integrated into primary healthcare systems. Training for healthcare providers is essential, as are efforts to reduce stigma and improve access to affordable mental health services. Underserved communities disproportionately affected by the pandemic require resources to address immediate needs and systemic inequities. Strengthening mental health services will be pivotal in building societal resilience.

To combat domestic violence, robust support systems must be established or strengthened. Shelters, helplines, and outreach programs should immediately assist those at risk. Public awareness campaigns can encourage reporting and intervention, complemented by strong legal frameworks to protect victims and hold perpetrators accountable. Tackling domestic violence requires a societal commitment to change and the empowerment of communities to support affected individuals.

Tailored programs should aim to bridge the digital divide by ensuring universal access to technology and internet connectivity. Furthermore, mental health support in educational settings is essential to help students cope with the psychological impacts of the pandemic. These efforts must be complemented by policies addressing broader educational disparities, fostering opportunities for all students to thrive. Innovative teaching methods and digital tools can enhance the resilience of education systems against future disruptions.

Community-driven solutions can address gaps that broader policy measures may overlook. The pandemic also underscored the importance of global solidarity. Collaborative efforts among nations accelerated vaccine development and distribution, proving the effectiveness of unified action. However, disparities in vaccine access highlight persistent inequalities that must be addressed through equitable global initiatives.

Small businesses, often the backbone of local economies, faced unprecedented challenges during the pandemic. Targeted financial aid and policy reforms promoting sustainability can help

these enterprises recover and adapt. Investments in green infrastructure and digital transformation can drive inclusive economic growth, creating opportunities that benefit society.

The interconnectedness of health, social, and economic systems requires multisectoral approaches to crisis preparedness. These approaches must address visible and invisible challenges, fostering resilience across all sectors. Building robust surveillance systems that include metrics for mental health and social determinants can guide evidence-based policies and interventions.

The COVID-19 pandemic has highlighted the complex interplay between visible and invisible damages without forgetting the long COVID, underscoring the need for holistic recovery strategies. Society can build a healthier, more equitable future by recognising and addressing these hidden wounds. The lessons from this crisis must guide global efforts to strengthen resilience and ensure preparedness for future challenges. Multisectoral collaboration, community empowerment, and international solidarity will be essential in shaping a more robust and inclusive framework for public health and societal well-being.

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