

Pandemic Response in Low- and Middle-Income Countries



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Abstract

The COVID-19 pandemic exposed and exacerbated pre-existing inequities in health systems worldwide, disproportionately affecting people with disabilities. In low- and middle-income countries (LMICs), these challenges were intensified by limited resources, underdeveloped or weakly enforced legal protections, fragile health infrastructure, and pervasive social stigma. As a result, people with disabilities frequently encountered barriers to timely information, preventive measures, healthcare services, and economic stability. These problems were compounded by a lack of political representation, scarcity of disability-disaggregated data, and the competing priorities that characterize policymaking during emergencies. Current advocacy for disability inclusion in pandemics often relies on humanitarian or human-rights rhetoric. While morally compelling, such arguments may have limited influences on policymaking in emergency contexts, where policymakers must prioritize among multiple urgent demands. This entry, therefore,

advances pragmatic arguments for disability-inclusive pandemic responses, emphasizing their potential public health advantages, such as reducing severe infections, secondary transmissions, and outbreaks in care facilities, and economic advantages, including lower long-term healthcare costs and improved workforce participation. Organizations of Persons with Disabilities (OPDs) emerge as critical actors in bridging the gap between people with disabilities and policymakers. By gathering first-hand data, articulating their unmet needs, and demonstrating the broader benefits of inclusive strategies, OPDs can help integrate disability considerations into emergency public health planning. Strengthening disability-inclusive approaches is essential not only for safeguarding the rights of people with disabilities but also for enhancing the equity, resilience, and efficiency of health systems in LMICs in the face of future pandemics and public health emergencies.

Keywords

Health equity · Health systems resilience · Low- and middle-income countries (LMICs) · Pandemic preparedness · Public health policy

Introduction

The COVID-19 pandemic profoundly disrupted healthcare systems worldwide, exposing and, in

many cases, exacerbating pre-existing inequities in access to care and public health protections. Among the most affected were people with disabilities, who experienced disproportionately higher risks of infection, substantial barriers to healthcare, and adverse socioeconomic impacts compared with non-disabled populations (Shakespeare et al., 2021). People with disabilities constitute approximately 16% of the global population (The World Health Organization, 2023), and an estimated 80% of people with disabilities reside in low- and middle-income countries (LMICs) (Saran et al., 2020). People with disabilities in LMICs face public health challenges stemming from limited accessibility of information and services, which collectively compound vulnerability during health emergencies.

Current discussions for protecting people with disabilities in LMICs during pandemics often lack arguments compelling enough to drive policy change. First, advocacy frequently relies on humanitarian or human-rights rhetoric. While appeals to humanitarian values are essential and underscore the moral imperative for equity, they are insufficient in emergency contexts or in resource-limited settings where human rights frameworks are either underdeveloped or poorly enforced (Criddle & Fox-Decent, 2012; Khosla et al., 2022). Second, much of the existing public health literature on people with disabilities in LMICs focuses on documenting problems rather than articulating the tangible benefits of disability-inclusive responses. Although identifying and addressing these challenges are critical, particularly given the scarcity of disaggregated data on this specific population, a simple emphasis on problems is less persuasive to policymakers, who must weigh competing priorities from multiple sectors during crises.

Thus, this entry highlights the inequities experienced by people with disabilities during pandemic responses in LMICs and advances pragmatic arguments for mobilizing resources to address these gaps. Its objective is to inform and support policymakers, non-governmental organizations, and Organizations of Persons with Disabilities in resource-constrained contexts in designing and implementing more inclusive health responses for future pandemics and other public health emergencies.

Problems Faced By People with Disabilities in Low- and Middle-Income Countries During the Pandemic

Inaccessibility of Information

In many low- and middle-income countries (LMICs), especially in rural or marginalized regions, people with disabilities faced significant barriers in accessing timely and accurate public health information during the pandemic. Limited resources in LMICs meant that public health messaging often failed to reach communities in formats accessible to people with disabilities (Meaney-Davis et al., 2020). For example, during the early stages of the COVID-19 pandemic, televised government briefings in several countries lacked sign language interpretation, excluding people with hearing impairments from critical updates (Yap et al., 2020). Similarly, the adaptation of emergency guidelines into Braille or other accessible formats for individuals with visual impairments occurred only after considerable delays (Sebastian et al., 2025), leaving many people with disabilities without crucial guidance during rapidly evolving public health crises.

Inaccessibility of Preventive Measures

People with disabilities in LMICs faced substantial barriers to preventive measures during the COVID-19 pandemic. Vaccine distribution in LMICs lagged significantly behind high-income countries; for example, as of October 2021, approximately 50% of the population in high-income countries had been vaccinated compared to only below 15% in LMICs (United Nations Development Programme, 2021). This disparity stemmed from multiple structural factors, including limited purchasing power, the concentration of vaccine research and development in wealthier nations, and the absence of robust international mechanisms for equitable vaccine allocation. Although initiatives such as COVAX played a critical role in delivering vaccines to LMICs (The World Health Organization, n.d.), these delays highlight a persistent vulnerability that is likely to recur in future pandemics. Consequently, non-vaccine preventive measures remain crucial for protecting populations in these settings.

People with disabilities face additional challenges in adopting preventive measures. Many rely on close physical assistance from family members or caregivers for daily activities, which complicates physical distancing and might increase the risk of secondary transmission both to and from caregivers (Islam et al., 2014; Public Health Agency of Canada, 2025). Masks and other preventive measures could be hindrances to communication as they might hide the mouth that would otherwise convey messages (Aggarwal et al., 2024). Furthermore, shortages of water, sanitation, and hygiene infrastructure and supplies were exacerbated during the pandemic, making basic preventive practices such as frequent handwashing difficult to implement (Hearst et al., 2021; Mohamed et al., 2022). These compounded barriers left people with disabilities particularly vulnerable to infection and reduced the effectiveness of standard public health measures.

Elevated Risk of Severe Infections

People with disabilities in LMICs also face a heightened risk of severe outcomes from infectious diseases, including COVID-19. A substantial proportion of people with disabilities live with one or more comorbid conditions, such as cardiovascular disease, diabetes, or chronic respiratory illness (Cooper et al., 2015; Rana et al., 2024). These underlying conditions are strongly associated with an increased likelihood of severe symptoms, hospitalization, and mortality when infected with Severe acute respiratory syndrome coronavirus 2 (Elezkurtaj et al., 2021; Sanyaolu et al., 2020). Moreover, emerging evidence suggests that people with disabilities may also be more susceptible to prolonged post-viral complications, including Long COVID, which further exacerbates long-term health and economic burdens (Subramanian et al., 2022; Tsampasian et al., 2023). The estimated healthcare and productivity costs associated with comorbidities among people with disabilities are considerable (Ponzio et al., 2023), compounding the challenges for already resource-constrained health systems in LMICs.

Inaccessibility of Healthcare

The COVID-19 pandemic severely disrupted routine healthcare services for people with disabilities

in LMICs. Widespread hospital closures, reallocation of resources to COVID-19 wards, and the diversion of healthcare personnel to emergency response efforts led to the suspension of essential services such as rehabilitation, physiotherapy, and the provision of assistive devices (Hearst et al., 2021; Shakespeare et al., 2021). Although telemedicine and home-delivery models for medication emerged as alternatives in some regions, their reach was limited in LMICs due to inadequate internet infrastructure, low digital literacy, and fragile distribution networks, particularly in rural areas (Banks et al., 2021; Lestari et al., 2024).

Access to acute care was also inequitable. During surges, people with disabilities who contracted COVID-19 were frequently deprioritized in triage decisions, often based on misinformed perceptions that their lives were of lower quality or value (Albrecht & Devlieger, 1999; Scully, 2020). Such implicit biases, combined with pre-existing barriers to hospital access, including transportation challenges and a lack of accessible facilities, further exacerbated health inequities and contributed to poorer outcomes for people with disabilities during the pandemic.

Barriers to Employment and Stable Household Income

The COVID-19 pandemic also intensified economic vulnerabilities among people with disabilities and their households in LMICs. A significant proportion of people with disabilities in these settings are employed in informal sectors such as street vending, day labor, or small-scale services (Mizunoya & Mitra, 2013). These sectors were disproportionately disrupted by lockdowns and movement restrictions. Lacking formal employment contracts, social insurance, or access to government relief programs, many people with disabilities and their families faced immediate loss of income and limited resources for financial support (Banks et al., 2021).

Re-employment opportunities were also limited. Persistent stigma surrounding disability, inadequate workplace accommodations, and overall labor market contraction made it considerably harder for people with disabilities to regain employment compared to non-disabled peers (Bialik & Mhiri, 2022; Morwane et al., 2021).

Empirical studies indicate that people with disabilities in LMICs consistently experience higher unemployment rates and longer periods of joblessness during and after pandemics (Department of Economic and Social Affairs, United Nations, 2019; Livermore & Honeycutt, 2015; Statistics Canada, 2023). Moreover, household incomes for families with people with disabilities were lower than those without disabled members (Mitra, 2018). The closure of schools and care facilities during the pandemic further exacerbated these challenges, as family members were compelled to provide full-time care to people with disabilities at home (Hunt et al., 2023; Neece et al., 2020).

These challenges were not isolated but rather compounded and mutually reinforcing, driven in part by the lack of political representation of people with disabilities, the scarcity of disability-disaggregated data to guide policy decisions, and the presence of competing and urgent priorities in policymaking under the pandemic.

Arguments beyond “Human Rights” Rhetoric

While human rights principles remain central to advocating for the protection of people with disabilities, reliance on rights-based rhetoric alone has limited persuasive power in emergency contexts. During pandemics, policymakers in low- and middle-income countries (LMICs) must contend with multiple competing priorities, such as controlling viral spread, maintaining essential health services, and stabilizing fragile economies, which can make it difficult to justify prioritizing disability inclusion solely on moral grounds. This section, therefore, advances pragmatic arguments for disability-inclusive pandemic responses, emphasizing their potential public health and economic benefits as well as their role in strengthening health system resilience.

Public Health Rationale

Investing in disability-inclusive pandemic responses yields substantial public health benefits, both for people with disabilities and the broader

community. Preventing severe infections among people with disabilities, who are often at elevated risk due to comorbidities, might reduce demand for already overstretched hospital services during health emergencies (Fries et al., 1993). Lower hospitalization rates free critical care resources for other patients, thereby reducing avoidable deaths (Janke et al., 2021; Spencer et al., 2023).

Inclusive interventions also mitigate secondary transmission risks. Many people with disabilities require close physical assistance from caregivers or family members, creating bidirectional pathways for infection spread. Protecting people with disabilities, therefore, indirectly safeguards caregivers and their households, reducing further strain on health systems and lowering mortality among essential support networks. Modeling studies have shown that loss of immediate caregivers during pandemics carries profound social and health consequences, particularly in LMIC contexts where formal care systems are limited (Hillis et al., 2021). Similarly, ensuring infection prevention in congregate settings, such as residential care facilities, can avert large outbreaks, which are both devastating for residents and costly for public health systems to contain. Beyond physical health outcomes, inclusive measures alleviate the psychological stress and caregiving burden on families, improving overall quality of life and community resilience (Cui et al., 2024; Yang et al., 2021).

Economic Rationale

Disability-inclusive pandemic responses also provide tangible economic benefits, particularly in resource-constrained settings. Preventing severe infections and associated complications among people with disabilities reduces long-term healthcare expenditures, as hospitalizations and post-acute care for high-risk populations are among the most costly components of pandemic response (Briggs & Vassall, 2021; Liu et al., 2025). This is especially relevant in LMICs, where health insurance coverage was approximately 8–50% (Hooley et al., 2022); minimizing avoidable health costs can alleviate fiscal pressures and allow scarce resources to be redirected toward broader public health priorities.

Inclusive strategies further support workforce participation and economic recovery. Many people with disabilities in LMICs face barriers to employment even under normal conditions, and pandemics exacerbate these challenges. By ensuring equitable access to preventive measures, healthcare, and social protections during emergencies, governments can help people with disabilities remain healthy and engaged in economic activities. Evidence from several studies indicates that employing people with disabilities not only broadens the labor pool but can also enhance organizational performance and innovation (Friedner, 2015; Kalargyrou, 2014; Scharzt et al., 2006). In this way, investing in inclusive health responses serves as a catalyst for both short-term economic resilience and long-term development.

Although empirical studies specifically examining the benefits of disability-inclusive programs during pandemics remain limited, insights from pre-existing research strongly suggest that such responses can yield substantial public health and economic advantages, benefiting not only people with disabilities themselves but also their broader communities and society.

Recommendations

Experiences from the COVID-19 pandemic underscore the critical role of Organizations of Persons with Disabilities (OPDs) and non-government organizations (NGOs) in driving disability-inclusive responses, particularly in low- and middle-income countries (LMICs) (Hunt et al., 2023). Strengthening the engagement of OPDs and NGOs is essential to ensure that pandemic preparedness and response strategies accurately reflect the needs and priorities of people with disabilities. OPDs and NGOs can serve as vital intermediaries, collecting and disseminating data on disability-related vulnerabilities, advocating for accessible public health interventions, and communicating the lived experiences of people with disabilities directly to policymakers.

To mobilize support, OPDs and allied organizations should work to generate and present evidence that demonstrates the broader public health

and economic benefits of disability inclusion. This evidence can help persuade policymakers and potential funders, including international donors, that inclusive measures are not merely humanitarian obligations but strategic investments in health system resilience. Tailored support programs should also be developed to address the diverse needs of people with disabilities, considering variations in impairment type, geographic location, and socio-economic context. By embedding these inclusive strategies into emergency preparedness plans, LMICs can better safeguard both disabled and non-disabled populations during future pandemics and other public health crises.

Limitations

The evidence cited in this entry is constrained by the limited number of studies collecting primary data on people with disabilities in low- and middle-income countries during pandemics and other health emergencies. As such, the findings presented here may not be directly transferable to all contexts or predictive of outcomes in future pandemics. There is a pressing need to collect and analyze larger volumes of first-hand data on the clinical, economic, and social effects of pandemics, as well as on the responses to them, to inform more precise and context-sensitive policy recommendations.

Furthermore, the problems and benefits discussed in this entry are not exhaustive. People with disabilities face challenges in additional domains that were beyond the scope of this discussion, including access to justice, or protection from gender-based violence. Addressing these issues would provide a more comprehensive understanding of the inequities experienced by people with disabilities during health crises and further strengthen the case for disability-inclusive emergency responses.

Conclusions

In conclusion, people with disabilities face substantial challenges during pandemics and are

frequently excluded from political consideration in emergency planning and response. Disability-inclusive approaches to pandemic preparedness and management hold the potential to generate benefits that extend beyond public health, contributing also to economic resilience and social stability. Organizations of Persons with Disabilities (OPDs) and non-government organizations (NGOs) can play a pivotal role as a bridge between people with disabilities and policymakers. By collecting first-hand data, identifying unmet needs, and demonstrating the public health and economic advantages of inclusive responses, OPDs and NGOs can help ensure that the voices and priorities of people with disabilities are integrated into decision-making processes. Strengthening these connections is essential for building equitable, resilient health systems capable of protecting all members of society during future public health crises.

Cross-References

- [Challenges and Innovations with Enhancing Healthcare Access for People with Disabilities](#)
- [Challenges and Resilience of Disabled People During COVID-19](#)
- [Impact of COVID-19 on Persons with Disabilities](#)
- [Impacts of COVID-19 on People Living with Disability](#)

Competing Interest Declaration The author(s) has no competing interests to declare that are relevant to the content of this manuscript.

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