

Pandemic preparedness

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Context

This rapid literature review aims to provide initial insights into emerging lessons on pandemic preparedness in the wake of the Covid-19 pandemic. It pays special attention to research generated by the Covid Collective research partners, contextualising it within the perspectives and lessons from the broader literature and debates on preparedness. The report especially considers evidence which indicates how future approaches to pandemic preparedness (based on what we have learned from our research) can really serve the interests of those in different societies who experience the greatest levels of vulnerability, exclusion, and marginalisation.

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The Covid Collective helpdesk service provides brief summaries of current research, evidence, and lessons learned. Helpdesk reports are not rigorous or systematic reviews; they are intended to provide an introduction to the most important evidence related to a research question. They draw on a rapid desk-based review of published literature and consultation with subject specialists.

This Helpdesk report was commissioned through the Covid Collective based at the Institute of Development Studies (IDS) and is funded by the UK Foreign Commonwealth and Development Office (FCDO) The Collective brings together the expertise of, UK and Southern based research partner organisations and offers a rapid social science research response to inform decision-making on some of the most pressing Covid-19 related development challenges. The views and opinions expressed do not necessarily reflect those of FCDO, the UK Government, or any other contributing organisation. For further information, please contact covidcollective@ids.ac.uk

1. Summary

The COVID-19 pandemic has shone a light on the many flaws in the global system to protect people from pandemics: the most vulnerable people going without vaccines; health workers without needed equipment to perform their life-saving work; and 'me-first' approaches that stymie the global solidarity needed to deal with a global threat... But at the same time, we have seen inspiring demonstrations of scientific and political collaboration, from the rapid development of vaccines to today's commitment by countries to negotiate a global accord that will help to keep future generations safer from the impacts of pandemics.

Dr Tedros Adhanom Ghebreyesus (WHO 2021a)

What is pandemic preparedness?

'Pandemic preparedness is a continuous process of planning, exercising, revising and translating into action national and sub-national pandemic preparedness and response plans. A pandemic plan is thus a living document which is reviewed regularly and revised, if necessary, for example based on the lessons learned from outbreaks or a pandemic, or from a simulation exercise' (WHO 2011). Preparedness is argued to be a new paradigm to manage infectious risk and outbreaks, aimed at creating a constant state of alertness and an 'anticipatory imagination' amongst policymakers (Lakoff 2017).

Report content

It is likely that the next pandemic will come within a decade; therefore, pandemic preparedness is of vital importance. This report considers emerging lessons from the Covid-19 pandemic, including research by the Covid Collective, a research platform offering rapid social science research to inform decision-making on the most pressing development challenges related to Covid-19.

This report firstly introduces the meaning of pandemic preparedness and some key lessons learned from the Covid-19 pandemic. Section 2 focuses on lessons learned from Covid-19 and how things can be improved in the future, and includes discussions on:

- **Interdisciplinarity:** Social, economic, and political issues are as important to pandemic preparedness as biomedical issues and an interdisciplinary approach is most effective for successful pandemic preparedness.
- **Health systems strengthening:** Strong health systems are better prepared to deal with pandemics and healthier populations are less susceptible to pandemics. Digitisation and technology can also be well utilised in the future.
- **Governance reform:** Much learning and many of the recommendations emerging from the Covid-19 pandemic relate to governance and focus on improved coordination and inclusivity.
- **Preparedness from below:** This refers to the understandings, practices, and capacities of communities to anticipate and manage disease threats.

Grounded in local realities, they often have a better sense of local vulnerabilities and needs, and what makes for appropriate preparedness measures.

- **Importance of trust:** The trust of populations in authorities and key actors has been recognised as being critical to successful emergency response, and social science research has been investigating ways to increase trust levels pre- and post-pandemic.
- **Research and planning:** Research and evidence from all disciplines are key to effective pandemic preparedness. Investment in research readiness and response is needed to build systems and structures for sustainable integration of evidence for current and future emergency events.
- **Communication:** Outbreak narratives are very important to consider and take hold of at the very early stages of a pandemic. We can learn from this and make plans for strategies to communicate facts and address concerns using multiple communication channels.

The final section focuses on **vulnerability, marginalisation, and exclusion**. The pandemic exacerbated vulnerability, exclusion, and marginalisation for many. This section looks at the impact of gender, age, disability, equity, rural and urban living, and the challenges faced by undocumented and displaced people.

Hope for the future

Much has been learned from the Covid-19 pandemic. Going forward, the world can limit pandemic risks and learn to respond much more effectively. This will require whole-of-government and whole-of-society responsibilities, not only those of health authorities and medical scientists, taking into consideration the intersecting precarities that affect people's lives (Pandemic Financing 2021; MacGregor *et al.* 2022). It will mean thinking internationally and not just domestically. It is also in the mutual interests of all nations to have a more equitable response so that some parts of the world are not left ill-equipped to respond and with later access to vaccines (Pandemic Financing 2021). To achieve this, we need to ensure that there are resilient health systems, improving people's abilities to withstand future shocks (BRAC 2020).

2. Lessons learned from Covid-19 and how things can be improved in the future

Interdisciplinarity can advance a 'whole-of government' and 'whole-of-society' approach

COVID-19 is equally – if not more – a socially driven disease as much as a biomedical disease.

(De Ver Dye *et al.* 2020)

Globally, all facets of society – health, security, political, economic, and social – were negatively impacted by the pandemic, and this was felt more strongly by those already experiencing the greatest vulnerabilities (WHO Africa 2021; Taylor and McCarthy 2021). The connections between socioeconomic inequalities and infections are well understood, and it is increasingly recognised that epidemics are also social and political events (Bardosh *et al.* 2020). Globally, it is becoming widely recognised that there is a need for a ‘whole-of government’ and ‘whole-of-society’ approach (Ortenzi *et al.* 2022). Therefore, if the mistakes of Covid-19 and other epidemics are not to be repeated, social, economic, and political issues must be seen as being as fundamental to the pandemic preparedness agenda as biological ones (IDS 2023). It is important to make use of multiple knowledges. Under conditions of uncertainty, using varied, plural knowledges is essential (Scoones 2023; Grant *et al.* 2015).

Social sciences play an important role, including enabling community-led participatory approaches and understanding drivers of change and models of health emergencies in local communities (Grant *et al.* 2015; Grant 2018). This is accomplished by taking an intersectional approach to pandemic preparedness, using a whole-of-society approach to engage all stakeholders from all relevant sectors (WHO 2021b). Even technologies such as vaccines, pharmaceutical treatments, and diagnostic tools, and information about their use, are not neutral instruments but have important social dimensions (Grant 2023). Laws and policies need to identify the roles and responsibilities of all actors and provide for clear coordination mechanisms between actors. Simulation exercises may be useful to ensure that all relevant actors are aware of their roles and responsibilities in public health emergencies (PHEs).

This can be complicated in practice as preparedness and response are non-linear. It can be unhelpful to have separations between ‘peacetime’, ‘crisis’, and ‘recovery’, and between ‘development’ and ‘humanitarian’ activities as they are closely linked. There needs to be a balance between technical, risk-based interventions in response to outbreaks and longer-term initiatives to strengthen health and social protection systems to ensure their agility and build trust (*ibid.*). It is also important to integrate PHE laws and policies with general disaster risk management (DRM) laws and policies to avoid a siloed approach and to eliminate gaps, conflicts, and duplication between these frameworks (IFRC Disaster Law, n.d.).

These lessons about interdisciplinarity are very important as they have real-world effects. When it comes to disease control measures, working households had to make trade-offs between following guidance to reduce disease impacts and accepting the economic impacts of this, or prioritising livelihoods. Using social science knowledge enables people to choose healthy behaviours and not think only in terms of compliance and information. It is key to gain in-depth knowledge of social, economic, cultural, and political processes, including social drivers of vulnerability and risks, and the impact of the pandemic on different populations/communities across and within countries (WHO 2022; Rahman and Bandiera 2021).

Keusch *et al.* (2022) suggest a One Health approach including One Health-based governance at all national, regional, and international levels for pandemic

preparedness, increasing funding for cross-disciplinary collaborative research, and a focus on increased South–South collaboration, inclusion of indigenous knowledge, public and private sector expertise, and participation of civil society.

Covid Collective Spotlight: Responding to Covid: Identifying transformative urban pathways

Dialogue on Shelter Trust have identified an opportunity to incorporate a ‘people-centred slum upgrade protocol’ in Zimbabwe’s pending national development plan (2021–2025). If the protocol is incorporated into the national development plan, Zimbabweans are likely to mobilise funding more readily to upgrade informal settlements, with the potential to address Covid-19-related risks and support equitable urban development pathways.

Strengthening health systems and primary care, and advancing universal health coverage

Another key theme in preparedness literature emerging in the wake of the Covid-19 pandemic is renewed attention to health systems strengthening – particularly of primary care, and also to achieving universal health coverage (UHC) (Babu *et al.* 2021), free from the constraints of for-profit insurance models (Galvani *et al.* 2022).

Researchers argue that there has been an over-reliance on global health security interventions for preparedness (e.g. early warning systems) and that there is a need for investment in fundamental UHC interventions including primary health care, affordable medicines and supplies, accessible health facilities, and the health workforce, with accountability for such commitments coming from international legal mechanisms such as a pandemic treaty (Lal *et al.* 2022a). Attention has also been called to the specific concerns of rural health systems which face ‘nuanced risks related to their mobility and interaction patterns coupled with heightened population needs, socioeconomic disadvantage and health service infrastructure challenges’ (O’Sullivan *et al.* 2020: 1187).

Attention to non-communicable diseases (NCDs) through improving quality and access to preventative, screening, and treatment services has also been highlighted as providing ‘incalculable’ contributions to pandemic preparedness (Horton 2022), as healthier populations are less susceptible to negative outcomes from infectious diseases. Rather than vertical programmes, it is argued that NCD investments should be integrated into high-quality health systems (*ibid.*) and NCD objectives integrated into pandemic preparedness plans and mechanisms (Kostova *et al.* 2022).

Digitisation of health systems, and of health information systems, is another area being flagged as important for preparedness, as this is understood to be able to substantially increase access to effective and affordable health services, and to provide essential data for informing decision-making in the context of health emergency (Lal *et al.* 2022b).

Covid Collective Spotlight: Transformation Labs – Implementing digital health innovations with and for young people at scale

One Covid Collective project has set up digital ‘transformation labs’ in Argentina and Bangladesh aimed at understanding and enabling young people’s use and innovation of digital tools, such as phones and the internet, to access and to create access for others to digital health services. Young people, often no longer covered by children’s health services, may find that their health needs are no longer met by health systems. By facilitating space for diverse stakeholders to co-create new visions, understandings, practices and interventions, the project aims to illustrate how digital transformation of health systems can better support the health of young people (and others), and thus build their, and their communities’ and countries’ resilience and preparedness to pandemics.

Inclusive governance is needed for pandemic preparedness

Global reform

Much learning and many of the recommendations emerging from the Covid-19 pandemic relate to governance and focus on improved coordination. The WHO-appointed Independent Panel for Pandemic Preparedness and Response, for instance, has put forward the following recommendations which ‘reflect a whole-of-society’ approach to pandemic preparedness (Ortenzi *et al.* 2022):

- Establish a global threats council to provide high-level political leadership and accountability;
- Establish a new financial facility for delivering preparedness and response resources, independent of aid budgets;
- Strengthen the authority and the independence of the WHO;
- New approach to global public goods to replace failed charity and market-based mechanisms which have led to inequitable distribution of resources (e.g. vaccines);
- Improve strategic coordination between existing institutions and sectors (e.g. public health and economic sectors) at and between subnational, national, regional, and global levels, including the private sector and civil society.

These reforms are envisioned to be able to overcome key problems that the Panel identified, including a de-prioritisation of global health threats, the siloing of pandemic preparedness and response within the health system, a fragmented international health system, and the lack of rapid and adequate financing, and of platforms for the rapid development and equitable distribution of technologies.

Global legal reform seems to be coalescing around support for a ‘pandemic treaty’ (Khor and Heymann 2021) although there are calls to go beyond health security concerns to include strong commitments to equity and human rights through UHC, health and social protection system strengthening, and linking the sustainable development goals (SDGs) to preparedness. Lal *et al.* (2022a) also call for reforms in

other areas of international law such as trade (to enable access to goods such as vaccines) and the involvement of civil society and prioritising communities in international-level decision-making (*ibid.*).

Regional and national governance

There has also been discussion of improved governance and coordination at regional levels. For example, Babu *et al.* (2021) suggest the development of a regional plan for South Asia, to enable mutual learning, resource pooling, development of essential goods, equipment, and services, and strengthening public health infrastructure. Convened by the Africa Centres for Disease Control and Prevention (CDC) and the International Federation of Red Cross and Red Crescent Societies (IFRC), African leaders have also come together to discuss the development of high-level guidance for Law and Public Health Emergency (PHE) Preparedness and Response in Africa, prioritising frameworks and platforms to allow different stakeholders from states within the region to effectively cooperate, coordinate, share information, and exchange lessons learned (IFRC Disaster Law, n.d.). This guidance would also aim to support countries to develop their own capacities, a priority which has also been noted as critical in global governance discussions about a 'pandemic treaty', indicating the need for such mechanisms to make space for national capacity building (Khor and Heymann 2021).

Covid Collective Spotlight: Spotlighting the role of regional collaboration

The Covid Collective project Political Settlements Research Programme illustrated how regional collaboration can build bridges between unequally prepared states to redistribute capacity, resources, and information during an emergency. For example, the programme highlighted the Organisation of Islamic Cooperation (OIC), most member states of which are located in the Middle East and North Africa (MENA) region, for their collaboration around Covid-19 vaccine capacity, and for their particular strength in mobilising religious networks across member countries to ensure public health measures were religiously sensitive (den Boer 2021). Intergovernmental cooperation occurring within regional organisations in Africa and Latin America were also spotlighted by the project. Together, the organisations were able to address the pandemic more effectively in their regional contexts, and against backdrops of inequality, vulnerability, conflict, and institutional instability (den Boer and Nash 2021). These examples point to the importance of strengthening regional relationships and governance cooperation as a matter of pandemic preparedness. Not only can they be mobilised for pandemic response, but for building a more equitable and resilient society in 'peacetime', itself necessary for pandemic preparedness.

Community involvement is key to preparing for future outbreaks

While preparedness agendas continue to emphasise technical improvements (e.g. in surveillance and vaccine platforms), some have called for greater attention to preparedness 'from below' (Grant 2023; MacGregor *et al.* 2022). These calls come from recognition of the contributions of grass-roots community responses to Covid-19

which were able to augment or fill in gaps – or voids – of formal state responses to contain the virus, and to mitigate the social and economic effects of the response measures and their potential to address future crises. Grounded in local realities, these actors and entities often have a better sense of local vulnerabilities and needs, and therefore what makes for appropriate response – and preparedness. Rather than being recognised or integrated into formal response initiatives, however, many grass-roots and particularly community sector actors acted independently, mobilising their own resources and networks to respond in locally relevant, appropriate, and acceptable ways. Bourrier and Deml (2022) comment that a ‘whole-of-society’ approach to emergency response was advocated prior to the Covid-19 pandemic, which ultimately did not materialise, and thus they argue that for future preparedness, countries should ‘consider local organizations’ potential to partake in containing infectious disease and counter undesirable side-effects of non-pharmaceutical measures’.

A Covid Collective helpdesk report on community-led innovation highlights that effective community-level responses were enabled by the existence of social capital, community-based assets, and networks and social cohesion in communities that predated the pandemic (Price 2022a). While the implications of this are not always framed or recognised in preparedness discussions, ‘resilient, confident and capable communities are the foundation on which swift and effective local responses to future crises will be built’ (Price 2022b). Thus, the recognition and support of existing – and new – community-based organisations, through money and the granting of power and autonomy is argued for in the literature (Carstensen *et al.* 2021). Critically, however, empowering grass-roots actors, it has been argued, should not absolve the state of its responsibilities to provide adequate relief when disaster strikes (Beaujouan *et al.* 2022). Furthermore, the literature also points to the important roles that better equipped and supported state-funded grass-roots workers and initiatives, such as community health workers (Grant 2023f), and private sector actors, such as community pharmacies (Bahlol and Dewey 2021), can play in responding to crisis and advancing health equity (and thus preparedness) in peacetime.

Many Covid Collective projects explored pandemic responses at the grass-roots level, the findings of which have implications for preparedness.

Covid Collective Spotlight: Community-based responses for the short and the long term

Research from Covid Collective partners African Cities Research Consortium and the International Institute for Environment and Development (IIED) described how community-based responses in slums in major African cities – including Kampala, Harare, Lilongwe, and Nairobi – were able not only to mobilise for immediate protection and relief of residents during crisis but to keep this momentum going to feed into advocacy and planning for improved slum services and infrastructure, more accountable local governance, and initiatives around community data and youth leadership (Sverdlik and Walnycki 2022; Kimari *et al.* 2022). Community-driven responses in Thailand, Myanmar, and the Philippines have also been highlighted by

Covid Collective partners IIED and the Asian Coalition for Housing Rights. These responses addressed immediate needs, as well as insecure land tenure, lack of representation of informal settlements in local government, and financial/housing organisations (Kerr 2022). Addressing these underlying conditions of poverty and exclusion are critical to pandemic preparedness.

Trust is critical to pandemic preparedness

Although the trust of populations in authorities and response actors has been recognised as critical to successful emergency response by social scientists, particularly following the Ebola pandemic of 2013–14 (Chandler *et al.* 2015), the Covid-19 pandemic has drawn renewed and more widespread attention to this critical factor. Several papers found no or limited relationship between countries’ pandemic performances and their scores in pandemic preparedness indices (Duong *et al.* 2022; Fukuda-Parr; Bollyky *et al.* 2022) (see for instance, the categories measured by the Global Health Security Index in Table 2.1). Rather, Bollyky and colleagues (*ibid.*) found that remarkably, infection rates, infection fatality ratios (IFRs), and Covid-19 vaccination uptake had, instead, a statistically significant relationship with measures of government and interpersonal trust, and with government corruption. Haldane *et al.* (2021) also found distrust was a ‘powerful undercurrent’ in countries which, despite having pandemic preparedness plans, were ‘low-performing’ in terms of effective response to Covid-19 (p. 20). Where distrust was deeper, rumours and misinformation have had more traction (Abdalla *et al.* 2021).

Table 2.1 Six categories measured by the Global Health Security Index

Prevention of the emergence or release of pathogens	Early detection and reporting of epidemics of potential international concern	Rapid response to, and mitigation of, the spread of an epidemic
Sufficient and robust health sector to treat the sick and protect health workers	Commitments to improving national capacity, financing, and adherence to norms	Overall risk environment and national vulnerability to biological threats

Source: Duong *et al.* 2022

Social scientists investigating trust in the context of the Covid-19 pandemic remind us that trust differs not just between countries but between different communities, groups, and individuals within countries, with implications for their engagement with emergency response, such as vaccination uptake (Schmidt-Sane *et al.* 2022). Furthermore, who is (dis)trusted ranges and is relevant beyond those in positions of formal authority (in government, health systems, scientific institutions) to those in community or informal settings, such as cultural, faith, peer, family, or other social leaders and networks (Parker *et al.* 2019).

The implications of trust for pandemic preparedness have been recognised by some as significant. Ntoumi and Zumla (2022: 1433) suggest that trust should be integrated into efforts to advance 'accurate metrics for future pandemic preparedness', and that for governments to build trust, they must not just minimise corruption but address fundamental social and economic inequalities. Tan *et al.* (2022) argue for meaningful and inclusive digital citizen-science and co-creation approaches to not only generate data useful for pandemic preparedness and response but to build trust between stakeholders.

Covid Collective Spotlight: Trust is highly contextual

Findings from a Covid Collective research project in war-affected Taiz, Yemen, found that residents had low trust and confidence in policing systems and the state, experiencing the latter as lacking a coherent plan (Wilson and al-Hamdani 2022). However, they had more trust in public health offices, emergency committees, and health professionals such as doctors, nurses, and medical response teams. This research also showed that trust can change as they viewed police more positively if they allowed people to return to crowded market spaces to obtain essential goods and participate in livelihood activities during the pandemic (Collyer *et al.* 2021). Preventative measures were also found to be more acceptable to people if civil society organisations were involved in their promotion, reflecting their position as 'closer to the people' and thus more trusted. More than just embracing trust building as critical to pandemic preparedness, it must be recognised that trust looks different in different contexts and should not be taken for granted – it can change, for worse, but also for better.

Research and planning are needed to build sustainable systems for the future

Pandemic preparedness... [needs]... to address key research gaps in top viral families to accelerate the development of vaccines, therapeutics and diagnostics for both priority pathogens and prototype pathogens.

Dr Anthony S. Fauci, Director National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH)

Research and evidence from all disciplines are key to effective pandemic preparedness. The R&D Blueprint is a global plan to rapidly activate research before and during epidemics:

Its aim is to fast-track the availability of effective tests, vaccines, medicines and social science that can be used to save lives and avert a large-scale crisis, enhancing traditional epidemiology and public health responses with knowledge and skills from a number of areas.

(WHO 2022: 9)

Evidence is needed to address structural barriers and to enable community-centred approaches to pandemics. Investment in research is needed to build systems and

structures to enable it to be integrated into current and future preparedness plans. Innovative methods such as rapid assessments, longitudinal ethnography, virtual anthropology, photo narratives, and community-based participatory research methods have been developed which can contribute towards future preparedness efforts (WHO 2022).

Covid Collective Spotlight: Resilience of the ultra-poor people in the face of Covid-19

A study in Bangladesh built on existing survey work to collect high-frequency longitudinal data to identify trends and inform effective intervention design for vulnerable groups economically affected by the Covid-19 pandemic in Bangladesh. This study focuses on those who previously escaped extreme poverty through BRAC's ultra-poor graduation (UPG) programme and tries to understand the factors (for example, the nature of occupation) that make them economically resilient against shocks such as Covid-19, enabling planning for the future.

Good communication keeps people connected and informed

The narratives around outbreaks are very important to consider, and to take hold of at the very early stages of a pandemic. Plans must be put in place to prepare a communication strategy. If government and health teams do not take hold of the narrative on outbreaks and people are forced to work out the rumours from the facts and decide the best course of action, they are more likely to ignore government directives rather than follow them and risk greater difficulties (Baluku *et al.* 2020). Social media and new technologies will likely play an increasingly prominent role in keeping people connected and (mis)informed, so awareness of infodemics and how to communicate key messages to populations are important (Grant and Sams 2023).

Covid Collective Spotlight: Intercultural communication for effective Covid-19 response in Amazonian indigenous territories

This action-research study in Brazil identifies the key barriers to effective communication between government health services and Amazonian indigenous communities who have been found to be particularly vulnerable to Covid-19. It translates the findings into a proof-of-concept design for improved intercultural communication strategies for ensuring (1) access to reliable information on Covid-19 prevention and treatment, and (2) trust and cooperation between communities and non-indigenous health professionals for contact tracing, referral, and response monitoring and social accountability. The project is producing a scalable support platform and accessible guidance materials appropriate for use with indigenous people elsewhere in Brazil and beyond.

3. Equity in pandemic preparedness: responding to the needs of those facing the greatest levels of vulnerability, exclusion, and marginalisation

References to the challenges – and contributions – of the most marginalised members of society have peppered this report, hinting at the importance not just of health but also of social and economic equity for pandemic preparedness, and how this has been recognised by the Covid Collective. Indeed, it was often the social and especially economic effects of the pandemic and formal government responses to it, which exacerbated vulnerability, exclusion, and marginalisation for many. In the words of Lal *et al.* (2022a: e1677), ‘many social, political, and environmental determinants of health, such as economic inequality, racism, gender inequity, and – increasingly – climate change, remain neglected throughout pandemic preparedness initiatives’, reflecting increasing calls for attention to these issues within pandemic preparedness. And while some emerging literature on pandemic preparedness has acknowledged this, it is often done so in generally vague ways with limited attention to the specific challenges, experiences, and exclusions of people living these realities, or what the implications for preparedness of these experiences may be. Contributions from the Covid Collective have given many illustrations of the particular impacts felt by these groups, which have implications for pandemic preparedness.

Women and intersectional marginalisation

Much of the literature on gender and the pandemic emphasises the disproportionate negative impacts on women and girls, such as the rise in domestic and gender-based violence, and the exclusion of girls in particular from schooling. Covid Collective research, for instance, highlighted that digitisation of education in some Southern contexts disproportionately affected girls due to expectations of them in the home (Charvet and García 2022). Linking to preparedness, Smith *et al.* (2022) conducted a feminist analysis of pandemic preparedness and response indicators, arguing that they should be reconceptualised beyond epidemiological and economic measurements, to include indicators on gender and other dimensions of potential and intersecting marginalisation such as race, ethnicity, and disability. The importance of an intersectional lens on the pandemic, although not necessarily to preparedness, has also been highlighted in a Covid Collective review by Birchall (2021).

Covid Collective Spotlight: Women as lynchpins in community response and preparedness

In a report on relief provided by community networks in Southeast Asia, Kerr (2022) highlights that women are not just vulnerable but in fact were on the frontlines of community response and ‘held everything together’ and women’s organising has been critical to community survival. This work indicates the importance of supporting women’s organising for stronger communities – critical to pandemic preparedness.

Disability and elderly people

In a Covid Collective report, Bolton (2022) cites research reflecting the barriers experienced by disabled people to participate in response and access relief, including failures to collect disability disaggregated data (Shakespeare *et al.* 2021). Loneliness and anxiety, greater exclusion from work – and thus vulnerability to economic risks were also found (Prynn *et al.* 2021; Kuper and Shakespeare 2021). Most literature does not explicitly link to preparedness, with the exception of Jesus *et al.* (2021) who propose a model for disability-inclusive pandemic response. Nevertheless, efforts to illustrate the challenges and barriers experienced by these communities reveal a need to remove barriers for participation in decision-making of disabled and older people in preparedness and response decision-making, including around data collection, and to bolster and make more inclusive support systems such as social safety nets.

Covid Collective Spotlight: Social protection for people with disabilities in Peru and Thailand

The Covid Collective project [The role of social protection in mitigating the impact of the Covid-19 pandemic and future shocks amongst people with disabilities in Peru and Thailand](#) aims to understand how social protection systems (relating to poverty, health, education, employment, and other support) have responded to the needs of disabled people, as well as co-create with disabled people recommendations for disability-inclusive social protection which can mitigate the impact of future shocks. In this way, the project speaks directly to pandemic preparedness: with strong support systems, people with disabilities will be in a better position to weather future shocks.

Undocumented, displaced people or otherwise excluded people

Undocumented people, informal workers, the displaced, and refugees are often highly vulnerable and likely to fall through the cracks of social protection and emergency response systems, even when targets exist for reaching vulnerable people. There has been little attention to what pandemic preparedness inclusive of these specific groups could look like, apart from acknowledgement that there is limited inclusion of them in existing plans (Razavi *et al.* 2022).

Covid Collective Spotlight: A strong civil society is important for reaching the most vulnerable

Covid Collective research conducted by the Humanity Research Consultancy in Vietnam highlighted the experiences of informal workers, including overseas workers who had no or limited documentation. Due to limited data on these groups, as well as bureaucratic delays, low disbursement rates, and limited transparency, many struggled to access targeted relief in some areas, meaning that they had to rely on civil society organisations. However, many were excluded, even from these initiatives, due to speaking languages other than the Vietnamese used in civil society campaigns (Do *et al.* 2022).

Rural and urban differences

There has been some attention in the literature to priorities for pandemic preparedness for distinct urban versus rural environments, but this is more limited in the context of disadvantaged groups in these settings. For urban areas, one paper makes a preparedness proposal for Urban Population Health Observatory Systems to track the social determinants of health by different population groups such as racial minorities (Brakefield *et al.* 2021), while in rural areas there has been attention to accounting for homelessness in preparedness efforts (Schiff *et al.* 2020) and other nuanced risks related to mobility, interaction patterns, socioeconomic disadvantage, and health service infrastructure challenges (O'Sullivan *et al.* 2020). One paper focusing on rural villages in Sierra Leone highlighted the 'intersecting precarities' faced by people in these settings which compete with pathogen-specific priorities in response and preparedness (MacGregor *et al.* 2022: 19). They argue for preparedness which addresses the 'slow emergencies' which generate these intersecting precarities.

Covid Collective Spotlight: Improving life in informal settlements for the long term

Although findings are not yet in, the Covid Collective project '[What are the lessons that state and non-state relief efforts during Covid-19 offer to social protection for informal settlements post-crisis?](#)' in India and Zimbabwe aims to explore how scaling up community initiatives (such as the many that emerged during Covid-19 in these settings) and the integration of informal workers into social protection schemes could improve life for people on the margins of society through reducing inequality, poverty, and exposure to hazards in the wake of Covid-19 and in the long term. The project will demonstrate a linkage between short-term response and long-term positive change, which can contribute to preparedness in the form of healthier, more resilient informal communities where many of the most vulnerable people in these societies live, work, and play.

Other Covid Collective research by partners in Kenya highlights action research which engaged residents of Mathare, a sprawling Nairobi slum, that led to the articulation of priorities of slum residents in the upgrading of their community (Kimari *et al.* 2022).

Vulnerability sensitive data and knowledge systems are needed for preparedness to protect the most marginalised

A cross-cutting theme across Covid Collective outputs on vulnerability and marginalisation during the pandemic has been the core issue of lack of data on marginalised groups to enable their visibility to response (Lenhardt 2021). This has been cited by several Covid Collective projects and outputs. Partners in Bangladesh for instance commented that 'the absence of an authentic database of beneficiaries was a crucial deficit and will affect adversely in future disasters' (BIGD 2021: 18) and they suggest vulnerability mapping to mitigate patchy and slow provision of relief to

the most vulnerable as happened during the Covid-19 pandemic. Speaking on Vietnam, Do and colleagues (2022) also argue for improved data systems – which includes improved transparency – so that vulnerable groups are better served in the next crisis. The World Health Organization (WHO) has also spoken on the importance of nuanced and realistic assessments of the social, economic, and health impacts of epidemics on marginalised groups, which can also feed into future preparedness (WHO 2022). Through this lens, Covid Collective efforts to understand and describe these impacts are a critical contribution to this work.

Covid Collective Spotlight: Pandemic preparedness for the real world

A working group on pandemic preparedness at the Institute of Development Studies, which hosts the Covid Collective, has proposed a new framework for preparedness which highlights five key areas that require transformational change. Knowledge systems are one such area. Beyond data systems which enable the visibility of vulnerable people, the group recommends a more inclusive approach to the types of data and knowledge considered relevant for pandemic preparedness, as well as the stakeholders who are invited to contribute to, or even lead these systems. For example, it is important to draw on the knowledge – including lived experiences – of marginalised groups themselves, to inform preparedness and response (IDS 2023).

Equity, justice, and resilience as preparedness

Expanding from discussions on the importance of meeting the needs of the most vulnerable in pandemic preparedness, some literature follows this line of logic to call for equity to be foregrounded as a preparedness imperative. Mujica *et al.* (2022) note that the pandemic's compounding of pre-existing inequalities and creation of new vulnerabilities had not been adequately anticipated in preparedness and response plans, arguing for such plans to integrate these concerns more strongly. Others expand further to suggest broader 'whole-of-society' ways of rectifying this (Ortenzi *et al.* 2022). For example, Lal and colleagues (2022a: e1677) argue for the explicit linking of various SDGs to preparedness, as well as the addressing of 'a striking paucity of social and economic protection policies at the domestic level, and of solidarity-based mechanisms to provide affordable medical supplies at the international level'.

This latter point also calls for a shifting of the balance of power away from 'patronising modes of operation and a power imbalance of funding initiatives between high-income and low-income countries, which often privilege global initiatives over the priorities of local communities or less powerful nations' (*ibid.* e1677). For Timmerman (2021), pandemic preparedness is a 'global public good' necessary for social justice (p. 201).

Covid Collective Spotlight: Chronic Poverty Report: Pandemic Poverty

This Covid Collective report will explore contexts and responses to the pandemic in Bangladesh, Cambodia, Ethiopia, India, Kenya, Rwanda, South Africa, and Zambia, drawing attention particularly to the impacts of the Covid-19 pandemic and multiple

other crises on poor and vulnerable people in these countries. It will also aim to take this learning to provide recommendations for policy and programmes to steer more equitable recovery and better future crisis response. Although not necessarily framed with a preparedness lens, this work illustrates the broad approach to preparedness which emphasises the resilience of societies – in the sense of not just being able to bounce back to a pre-crisis status quo but to achieve a more transformative and fairer state.

4. References

- Abdalla, S. M., Koya, S. F., Jamieson, M., Verma, M., Haldane, V., Jung, A.-S., Singh, S., Nordström, A., Obaid, T., Legido-Quigley, H., & McNab, C. (2021). *Investing in trust and community resilience: Lessons from the early months of the first digital pandemic*. *BMJ*, 375, e067487. (accessed 17 May 2023)
- Babu, G.R.; Khetrupal, S.; John, D.A.; Deepa, R. and Narayan, K.M.V. (2021) 'Pandemic Preparedness and Response to COVID-19 in South Asian Countries', *International Journal of Infectious Diseases* 104: 169–74, DOI: 10.1016/j.ijid.2020.12.048 (accessed 27 April 2023)
- Bahlol, M. and Dewey, R.S. (2021) 'Pandemic Preparedness of Community Pharmacies for COVID-19', *Research in Social and Administrative Pharmacy* 17.1: 1888–96 (accessed 27 April 2023)
- Baluku, M.; Akello, G.; Parker, M. and Grant, C. (2020) 'How the "Disease of the Radio" is Affecting People on the Uganda-DRC Border', Brighton: Institute of Development Studies (accessed 27 April 2023)
- Bardosh, K.L. *et al.* (2020) 'Integrating the Social Sciences in Epidemic Preparedness and Response: A Strategic Framework to Strengthen Capacities and Improve Global Health Security', *Globalization and Health* 16: 120 (accessed 27 April 2023)
- Beaujouan, J.; El hafi, A.; Ghreiz, E. and Odat, A. (2022) *Rethinking Governance: Insights from Syria during Covid-19*, Edinburgh: Global Justice Academy, University of Edinburgh
- Birchall, J. (2021) *Intersectionality and Responses to Covid-19*, Brighton: Institute of Development Studies, DOI: 10.19088/CC.2021.003 (accessed 27 April 2023)
- Bollyky, T.J. *et al.* (2022) 'Pandemic Preparedness and COVID-19: An Exploratory Analysis of Infection and Fatality Rates, and Contextual Factors Associated with Preparedness in 177 Countries, from Jan 1, 2020, to Sept 30, 2021', *The Lancet* 399.10334: 1489–1512, DOI: [https://doi.org/10.1016/S0140-6736\(22\)00172-6](https://doi.org/10.1016/S0140-6736(22)00172-6) (accessed 27 April 2023)
- Bolton, L. (2022) *Synthesis of Work by the Covid Collective*, Brighton: Institute of Development Studies, DOI: 10.19088/CC.2022.001 (accessed 27 April 2023)
- Bourrier, M.S. and Deml, M.J. (2022) 'The Legacy of the Pandemic Preparedness Regime: An Integrative Review', *International Journal of Public Health* 67: 1604961, DOI: 10.3389/ijph.2022.1604961 (accessed 27 April 2023)
- BIGD (2021) 'The State of Governance in Bangladesh 2020–2021: Governing COVID-19 in Bangladesh: Realities and Reflections to Build Forward Better', *BIGD Research Brief* 8, Dhaka and Washington DC: BRAC Institute of Governance and Development (BIGD), BRAC University and Accountability Research Center (ARC), American University (accessed 27 April 2023)
- Brakefield, W.S.; Ammar, N.; Olusanya, O.A. and Shaban-Nejad, A. (2021) 'An Urban Population Health Observatory System to Support COVID-19 Pandemic Preparedness, Response, and Management: Design and Development Study', *JMIR Public Health and Surveillance* 7.6: e28269, DOI: 10.2196/28269 (accessed 4 May 2023)

- Carstensen, N., Mudhar, M., & Munksgaard, F. S. (2021). 'Let communities do their work': The role of mutual aid and self-help groups in the Covid-19 pandemic response. *Disasters*, 45(1), S146–S173. (accessed 17 May 2023)
- Chandler, C., Fairhead, J., Kelly, A., Leach, M., Martineau, F., Mokuwa, E., Parker, M., Richards, P., & Wilkinson, A. (2015). Ebola: Limitations of correcting misinformation. *The Lancet*, 385(9975), 1275–1277. (accessed 17 May 2023)
- Charvet, E. and García, D. (2022) 'The Role of Digital Education in Future Shocks: Priorities from the Global South', *Policy Brief*13, Lima: Southern Voice (accessed 4 May 2023)
- Collyer, M.; Mitlin, D.; Wilson, R. and Shahaduz, Z. (2021) *Covid-19: Community Resilience in Urban Informal Settlements*, Covid Collective Research for Policy and Practice, Brighton: Institute of Development Studies, DOI: [10.19088/CC.2021.001](https://doi.org/10.19088/CC.2021.001) (accessed 4 May 2023)
- den Boer, H. (2021) 'Regional Approaches to Covid-19: Organisation of Islamic Cooperation Pandemic Response', *PeaceRep*, 1 April (accessed 4 May 2023)
- den Boer, H. and Nash, K. (2021) *Regional Responses to Covid-19: The Role of Intergovernmental Organisations in Latin America, Africa, and the Middle East*, Edinburgh: Political Settlements Research Programme (accessed 4 May 2023)
- De Ver Dye, T.; Muir, E.; Farovitch, L.; Siddiqi, S. and Sharma, S. (2020) 'Critical Medical Ecology and SARS-COV-2 in the Urban Environment: A Pragmatic, Dynamic Approach to Explaining and Planning for Research and Practice', *Infectious Diseases of Poverty* 9:71 (accessed 4 May 2023)
- Do, T.N.; Chiang, M.; Kasper, E. and Chen, S. (2022) *Impact of Vietnam's Covid-19 Response on Vulnerable Groups*, Brighton: Institute of Development Studies, DOI: [10.19088/IDS.2022.016](https://doi.org/10.19088/IDS.2022.016) (accessed 4 May 2023)
- Duong, D. B., King, A. J., Grépin, K. A., Hsu, L. Y., Lim, J. F., Phillips, C., Thai, T. T., Venkatachalam, I., Vogt, F., Yam, E. L. Y., Bazley, S., Chang, L. D.-J., Flaugh, R., Nagle, B., Ponniah, J. D., Sun, P., Trad, N. K., & Berwick, D. M. (2022). Strengthening national capacities for pandemic preparedness: A cross-country analysis of COVID-19 cases and deaths. *Health Policy and Planning*, 37(1), 55–64. (accessed 17 May 2023)
- Fukuda-Parr, S. (2022). When indicators fail: SPAR, the invisible measure of pandemic preparedness. *Policy and Society*, 47(4), 528–540. (accessed 17 May 2023)
- Galvani, A.P. *et al.* (2022) 'Universal Healthcare as Pandemic Preparedness: The Lives and Costs That Could Have Been Saved During the COVID-19 Pandemic', *Proceedings of the National Academy of Sciences* 119.25: e2200536119 (accessed 4 May 2023)
- Grant, C. (2023) 'Shifting Power in Pandemics', *IDS Opinion*, 13 January (accessed 4 May 2023)
- Grant, C. (2018) *Disaster Preparedness to Reduce Anxiety and Post-Disaster Stress*, K4D Helpdesk Report, Brighton: Institute of Development Studies (accessed 5 May 2023)
- Grant, C. and Sams, K. (2023) 'Global Narratives on Unequal Outcomes Produced by Lockdown in Africa: A Social Science Perspective on the "One-Size-Fits All" COVID-19 Response', *Frontiers in Public Health* 11: 1046404
- Grant, C. *et al.* (2015) 'Moving Interdisciplinary Science Forward: Integrating Participatory Modelling with Mathematical Modelling of Zoonotic Disease in Africa', *Infectious Diseases of Poverty* 5.1: 17 (accessed 5 May 2023)
- Haldane, V., Jung, A.-S., Neill, R., Singh, S., Wu, S., Jamieson, M., Verma, M., Tan, M., Foo, C. D., Abdalla, S. M., Shrestha, P., Chua, A. Q., Nordström, A., & Legido-Quigley, H. (2021). From response to transformation: How countries can strengthen national pandemic preparedness and response systems. *BMJ*, 375, e067507. (accessed 17 May 2023)

- Horton, R. (2022) 'Offline: How to Fix Pandemic Preparedness', *The Lancet* 399.10339: 1927, DOI: 10.1016/S0140-6736(22)00928-X (accessed 5 May 2023)
- IDS (2023) *Pandemic Preparedness for the Real World: Why We Must Invest in Equitable, Ethical and Effective Approaches to Help Prepare for the Next Pandemic*, Brighton: Institute of Development Studies, DOI: 10.19088/CC.2023.002 (accessed 5 May 2023)
- IFRC Disaster Law (2021) *Guidance on Law and Public Health Emergency Preparedness and Response: Pilot Version* (accessed 5 May 2023)
- Jesus, T.S. *et al.* (2021) 'PREparedness, REsponse and SySTemic Transformation (PRE-RE-SyST): A Model for Disability-Inclusive Pandemic Responses and Systemic Disparities Reduction Derived from a Scoping Review and Thematic Analysis', *International Journal for Equity in Health* 20: 204 (accessed 5 May 2023)
- Kerr, T. (2022) *Doing More with Less: COVID-19 Relief by Community Networks in Southeast Asia*, IIED Working Paper, London: International Institute for Environment and Development (accessed 5 May 2023)
- Keusch, G.T. *et al.* (2022) 'Pandemic Origins and a One Health Approach to Preparedness and Prevention: Solutions Based on SARS-CoV-2 and Other RNA Viruses', *Proceedings of the National Academy of Sciences of the United States of America* 119.42: e2202871119 (accessed 5 May 2023)
- Khor, S.K. and Heymann, D.L. (2021) 'Pandemic Preparedness in the 21st Century: Which Way Forward?', *The Lancet Public Health* 6.6: e357–e358, DOI: 10.1016/S2468-2667(21)00101-8 (accessed 5 May 2023)
- Kimari, W.; Kimani, J.; Otieno, R.; Sverdlik, A. and Waithaka, J. (2022) 'Amplifying Grassroots COVID-19 Responses in Kenya', *IIED Briefing*, London: : International Institute for Environment and Development (accessed 5 May 2023)
- Kostova, D.A. *et al.* (2021) 'Strengthening Pandemic Preparedness Through Noncommunicable Disease Strategies', *Preventing Chronic Disease* 18: 210237, DOI: 10.5888/pcd18.210237 (accessed 5 May 2023)
- Kuper, H., & Shakespeare, T. (2021). *Are older people with disabilities neglected in the COVID-19 pandemic?* *The Lancet Public Health*, 6(6), e347–e348. (accessed 17 May 2023)
- Lakoff, A. (2017) *Unprepared: Global Health in a Time of Emergency*, Oakland CA: University of California Press
- Lal, A. *et al.* (2022a) 'Pandemic Preparedness and Response: Exploring the Role of Universal Health Coverage within the Global Health Security Architecture', *The Lancet Global Health* 10.11: e1675–e1683, DOI: 10.1016/S2214-109X(22)00341-2 (accessed 5 May 2023)
- Lal, A.; Ashworth, H.C.; Dada, S.; Hoemeke, L. and Tambo, E. (2022b) 'Optimizing Pandemic Preparedness and Response Through Health Information Systems: Lessons Learned From Ebola to COVID-19', *Disaster Medicine and Public Health Preparedness* 16.1: 333–40, DOI: 10.1017/dmp.2020.361 (accessed 5 May 2023)
- Lenhardt, A. (2021) *The Social Economic Impacts of Covid-19 in Informal Urban Settlements*, Covid Collective Helpdesk Report 8, Brighton: Institute of Development Studies, DOI: 10.19088/CC.2021.008 (accessed 5 May 2023)
- MacGregor, H. *et al.* (2022) 'Negotiating Intersecting Precarities: COVID-19, Pandemic Preparedness and Response in Africa', *Medical Anthropology* 41.1: 19–33 (accessed 5 May 2023)
- Madad, S.; Moskovitz, J.; Boyce, M.R.; Cagliuso, N.V. and Katz, R. (2021) 'Ready or Not, Patients Will Present: Improving Urban Pandemic Preparedness', *Disaster Medicine and Public Health Preparedness* 15.3: 267–70 (accessed 5 May 2023)

- Mujica, O.J.; Brown, C.E.; Victora, C.G.; Goldblatt, P.O. and Barbosa da Silva, J. (2022) 'Health Inequity Focus in Pandemic Preparedness and Response Plans', *Bulletin of the World Health Organization* 100.2: 91–91A (accessed 5 May 2023)
- Ntoumi, F., & Zumla, A. (2022). *Advancing accurate metrics for future pandemic preparedness*. *The Lancet*, 399(10334), 1443–1445. (accessed 17 May 2023)
- O'Sullivan, B.; Leader, J.; Couch, D. and Purnell, J. (2020) 'Rural Pandemic Preparedness: The Risk, Resilience and Response Required of Primary Healthcare', *Risk Management and Healthcare Policy* 13: 1187–94 (accessed 5 May 2023)
- Ortenzi, F., Marten, R., Valentine, N. B., Kwamie, A., & Rasanathan, K. (2022). *Whole of government and whole of society approaches: Call for further research to improve population health and health equity*. *BMJ Global Health*, 7(7), e009972. (accessed 17 May 2023)
- Pandemic Financing (2021) *A Global Deal for Our Pandemic Age* (accessed 5 May 2023)
- Parker, M., Hanson, T. M., Vandt, A., Babawo, L. S., & Allen, T. (2019). *Ebola and Public Authority: Saving Loved Ones in Sierra Leone*. *Medical Anthropology*, 38(5), 440–454. (accessed 17 May 2023)
- Price, R.A. (2022a) *Community-Led Innovations and Actions in Response to the Covid-19 Pandemic*, Covid Collective Phase 2 Helpdesk Report 1, Brighton: Institute of Development Studies (accessed 5 May 2023)
- Price, R.A. (2022b) 'The Cost-of-Living Crisis: What Can we Learn from Community-Led Responses to Covid-19?', *Covid Collective blog*, 28 October (accessed 5 May 2023)
- Prynn, J. E., Polack, S., Mactaggart, I., Banks, L. M., Hameed, S., Dionicio, C., Neupane, S., Murthy, G. V. S., Oye, J., Naber, J., & Kuper, H. (2021). *Disability among Older People: Analysis of Data from Disability Surveys in Six Low- and Middle-Income Countries*. *International Journal of Environmental Research and Public Health*, 18(13), Article 13.
- Rahman, A. and Bandiera, O. (2021) *COVID-19 vs. UPG: Evidence from the 2007 Cohort in Bangladesh*, Dhaka: BRAC Institute of Governance & Development (BIGD)
- Razavi, D.; Noorulhuda, M.; Velez, M. and Kapiriri, L. (2022) 'The Role of Priority Setting in Pandemic Preparedness and Response: A Comparative Analysis of COVID-19 Pandemic Plans in 12 Countries in the Eastern Mediterranean Region', *BMJ Global Health* 7.suppl 2: A11
- Schiff, R., Buccieri, K., Schiff, J. W., Kauppi, C., & Riva, M. (2020). *COVID-19 and pandemic planning in the context of rural and remote homelessness*. *Canadian Journal of Public Health*, 111(6), 967–970. (accessed 17 May 2023)
- Schmidt-Sane, M., Hrynicky, T., Sca, S. C. A., Forgacz-Cooper, C., & Curtis, S. (2022). *Youth COVID-19 Vaccine Engagement in Ealing, London, United Kingdom*. Institute of Development Studies. (accessed 17 May 2023)
- Scoones, I. (2023) 'Preparing for the Next Pandemic: Lessons from Zimbabwe', *ZimbabweLand*, 16 January (accessed 5 May 2023)
- Shakespeare, T., Ndagire, F., & Seketi, Q. E. (2021). *Triple jeopardy: Disabled people and the COVID-19 pandemic*. *The Lancet*, 397(10282), 1331–1333.
- Smith, J. et al. (2022) 'Reconceptualizing Successful Pandemic Preparedness and Response: A Feminist Perspective', *Social Science & Medicine* 315: 115511 (accessed 5 May 2023)
- Sverdlik, A. and Walnycki, A. (2022) 'Pandemic Preparedness and Community-Led Solutions in African Cities', *African Cities Research Consortium*, 21 June (accessed 5 May 2023)

- Tan, Y.-R., Agrawal, A., Matsoso, M. P., Katz, R., Davis, S. L. M., Winkler, A. S., Huber, A., Joshi, A., El-Mohandes, A., Mellado, B., Mubaira, C. A., Canlas, F. C., Asiki, G., Khosa, H., Lazarus, J. V., Choisy, M., Recamonde-Mendoza, M., Keiser, O., Okwen, P., ... Yap, P. (2022). *A call for citizen science in pandemic preparedness and response: Beyond data collection*. *BMJ Global Health*, 7(6), e009389. (accessed 17 May 2023)
- Taylor, P. and McCarthy, M. (2021) 'Introduction – Building Back a Better World: The Crisis and Opportunity of Covid-19', *IDS Bulletin* 52.1: 1–18, DOI: [10.19088/1968-2021.102](https://doi.org/10.19088/1968-2021.102) (accessed 5 May 2023)
- Timmermann, C. (2021) 'Pandemic Preparedness and Cooperative Justice', *Developing World Bioethics* 21.4: 201–10 (accessed 5 May 2023)
- WHO (2022) *How Global Research Can End This Pandemic and Tackle Future Ones*, Geneva: World Health Organization (accessed 5 May 2023)
- WHO (2021a) *World Health Assembly Agrees to Launch Process to Develop Historic Global Accord on Pandemic Prevention, Preparedness and Response*, 1 December (accessed 5 May 2023)
- WHO (2021b) *ZERO DRAFT Report of the Member States Working Group on Strengthening WHO Preparedness for and Response to Health Emergencies to the Special Session of the World Health Assembly*, Fourth Meeting of the Working Group on Strengthening WHO Preparedness and Response to Health Emergencies, A/WGPR/4/3, 28 October (accessed 5 May 2023)
- WHO (2011) *Pandemic Preparedness*, World Health Organization Fact Sheet, 25 March (accessed 5 May 2023)
- WHO Africa (2021) *The Coronavirus Disease 2019 (COVID-19): Strategic Preparedness and Response Plan for the WHO African Region, 1 February 2021–31 January 2022*, World Health Organization Africa (accessed 5 May 2023)
- Wilson, R. and al-Hamdani, R. (2022) *Pulling the Pieces Together: Health and Community Actors as Levers of Local Response in Taiz and Hadhramaut, Yemen*, Edinburgh: PeaceRep, University of Edinburgh (accessed 5 May 2023)

5. Key resources

- Bolton, L. (2022) *Synthesis of Work by the Covid Collective*, Covid Collective, Brighton: Institute of Development Studies, DOI: [10.19088/CC.2022.001](https://doi.org/10.19088/CC.2022.001) (accessed 5 May 2023)
- Collyer, M.; Mitlin, D.; Wilson, R. and Shahaduz, Z. (2021) *Covid-19: Community Resilience in Urban Informal Settlements*, Covid Collective Research for Policy and Practice, Brighton: Institute of Development Studies, DOI: [10.19088/CC.2021.001](https://doi.org/10.19088/CC.2021.001) (accessed 4 May 2023)
- Lal, A. *et al.* (2022a) 'Pandemic Preparedness and Response: Exploring the Role of Universal Health Coverage within the Global Health Security Architecture', *The Lancet Global Health* 10.11: e1675–e1683, DOI: [10.1016/S2214-109X\(22\)00341-2](https://doi.org/10.1016/S2214-109X(22)00341-2) (accessed 5 May 2023)
- MacGregor, H. *et al.* (2022) 'Negotiating Intersecting Precarities: COVID-19, Pandemic Preparedness and Response in Africa', *Medical Anthropology* 41.1: 19–33 (accessed 5 May 2023)
- Pandemic Financing (2021) *A Global Deal for Our Pandemic Age* (accessed 5 May 2023)
- WHO (2022) *How Global Research Can End This Pandemic and Tackle Future Ones*, Geneva: World Health Organization (accessed 5 May 2023)

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About this report

This report is based on six days of desk-based research. The Covid Collective research helpdesk provides rapid syntheses of a selection of recent relevant literature and international expert thinking in response to specific questions relating to international development. For any enquiries, contact Covid Collective: covidcollective@ids.ac.uk.

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