



Addressing COVID-19 vulnerabilities: How do we achieve global health security in an inequitable world

Annamarie Bindenagel Šehović & Kaymarlin Govender

To cite this article: Annamarie Bindenagel Šehović & Kaymarlin Govender (2021) Addressing COVID-19 vulnerabilities: How do we achieve global health security in an inequitable world, *Global Public Health*, 16:8-9, 1198-1208, DOI: [10.1080/17441692.2021.1916056](https://doi.org/10.1080/17441692.2021.1916056)

To link to this article: <https://doi.org/10.1080/17441692.2021.1916056>



Published online: 18 Apr 2021.



Submit your article to this journal [↗](#)



Article views: 250



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 1 View citing articles [↗](#)

COMMENTARY



Addressing COVID-19 vulnerabilities: How do we achieve global health security in an inequitable world

Annamarie Bindenagel Šehović^a and Kaymarlin Govender^b

^aPolitics and International Studies (PAIS), University of Warwick, Coventry, UK; ^bCollege of Law and Management Sciences, University of KwaZulu-Natal, Durban, South Africa

ABSTRACT

The spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes COVID-19, [WHO. (2019). *Naming the coronavirus disease (COVID-19) and the virus that causes it*. [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it)] and is responsible for the COVID-19 pandemic is another in a long line of Coronavirus outbreak – and unlikely to be the last. More than a year into the pandemic, SARS-CoV-2 has exposed the dangerous hollowness of a global commitment to global health security. Global health security (GHS) has no uncontested definition, and despite ample pandemic warnings (HIV, H1N1, SARS, MERS-CoV, Ebola, Zika) the world, remains woefully unprepared for an adequate pandemic response; its lack of preparation the predictable result of inattention to equity and with it global health security. The first section of this paper lays out the particular challenges of COVID-19 for less well-resourced countries. The second part discusses the inequities being perpetuated and accentuated in the development and distribution of COVID-19 vaccines. The third section discusses ways to address these global inequities and its related complexities. We conclude by restating some of the key priorities for achieving GHS.

ARTICLE HISTORY

Received 31 March 2021
Accepted 3 April 2021

KEYWORDS

Health security;
vulnerabilities; inequity;
vaccines; COVID-19

1. Introduction

The spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes COVID-19, (WHO, 2019) and is responsible for the COVID-19 pandemic (declared by WHO as a global pandemic on 11 March 2020), is another in a long line of Coronavirus outbreaks (responsible for the seasonal flu to SARS and MERS-CoV). More than a year after the WHO declaration, the successful spread of SARS-CoV-2 has exposed the dangerous hollowness of a global commitment to global health security.

Global health security (GHS) has no uncontested definition, but is rather approachable from two perspectives that operate in tension: that of state security prioritising individual national(s) safety and security, and that of human security-centered population security that also applies beyond borders (Moon et al., 2017; Šehović, 2019). This emptiness should come as no surprise: despite ample pandemic warnings (HIV, H1N1, SARS, MERS-CoV, Ebola, Zika) the world, as we have seen in the last year, is woefully unprepared for an adequate pandemic response; its lack of preparation the predictable result of inattention to equity and with it global health security.

This commentary proceeds from the perspective that GHS in the twenty-first century needs to be human security-centric and equity-based. In this rendering, GHS encompasses the protection of the health of persons and societies worldwide, including equitable access to medicines, vaccines, and health care, as well as reductions in collective vulnerabilities to global public health events that have the potential to spread across borders (Cáceres, 2011; Šehović, 2019). As a consequence, the individual, state-centric GHS paradigm appears to be gaining an upper hand globally, while the human security centric focus is flailing just at a time when local as well as global efforts to secure and sustain real global health safety and security are vital – to ending the COVID-19 pandemic, but also to render the world's populations more resilient in the face of certain future pandemics. This results in accentuated health inequity along enduring power differentials roughly hewed between the global North and global South, perpetuating patterns of protection and safety for select populations in the more powerful North, and reinforcing vulnerability and insecurity for many populations in the less powerful South. However, global health threats such as the spread of SARS-CoV-2 make no such distinction between populations and geographies. Anywhere health inequities exist, human and health-related civil rights, notably the aspirational 'right to health', defined as the 'highest attainable level of health' (WHO, 1948), suffer, most notably among the marginalised.

The first section of this paper lays out the particular challenges of COVID-19 for less well-resourced countries. The second part discusses the inequities being perpetuated and accentuated in the development and distribution of COVID-19 vaccines. The third section discusses ways to address these global inequities and its related complexities. We conclude by restating some of the key priorities for achieving GHS.

2. For richer or poorer: the particular challenges of COVID-19 in less well-resourced countries

While wealthy countries are characterised, generally, by relatively lesser disease burdens, better health systems and better social determinants of health, than poor countries, COVID-19 has laid bare the (in)effectiveness of their public health responses and the extent to which these countries, are struggling to respond to and contain the pandemic (Lal et al., 2020; OECD, 2020a). In poor countries as well, especially those on the African continent, inequities in health outcomes between and within national populations are apparent. The first wave(s) of the COVID-19 pandemic there (though initially less severe than in the global north), has made the situation worse (OECD, 2020b). This consequence of COVID-19 is also attributable to already weak health and social systems strained by populations carrying a high burden of disease (HIV, TB, malaria and increasing rates of diabetes) and exacerbated by existing poor social determinants of health (Bambra et al., 2020; Lisk, 2009). Repercussions of these trends will reverberate well into 2021, propelled also by further waves of COVID-19 and new and more infectious variants the B.1.1.7 (UK) variant and the B.1.351 (also referred to as 501Y.V2; South African) variant (CDC, 2020) taking root in an increasing number of countries (UK, continental Europe, South Africa and Southern African region).

In order to reduce the spread of disease during the first wave, many countries followed a centralised; command and control 'crisis management approach', declaring national emergencies, mandating lockdowns and instituting other strict response measures (variously described as stay-at home orders, shelter-in-place orders, *cordons sanitaires* and economic shutdowns) (WHO, 2020a) to limit the spread of SARS-CoV-2. Populationlevel non-adherence to these policies was met with punitive consequences in many contexts (Nay, 2020). During 2020, such COVID-19 pandemic related restrictions affected more than 3.9 billion people in more than 90 countries or territories (Euronews, 2020). The verdict on their effectiveness is debatable and linked to the type of measures taken by individual countries – as well as to the Covid-19 variant and pre-existing determinants of health.

In particular for LMICs, the lockdown measures instituted to control the spread of the virus also limited access to essential public health services, like HIV and sexual and reproductive health (SRH)

services (Riley et al., 2020; WHO, 2020b). These measures also redirected the central role and function of community systems in COVID-19 testing, treatment and prevention programming (Modesti et al., 2020). Annual impacts in the range of a 10% proportional decline of SRH services resulting from COVID-19 related disruptions in 132 LMICs have been estimated, with disruptions being felt in the rate of use of contraceptives, service coverage for essential pregnancy-related and new-born care, as well as shifts from safe to unsafe abortions (Riley et al., 2020). There have also been declines in the number of people currently receiving antiretroviral treatment in countries including South Africa, Zimbabwe, Lesotho and Kenya (as documented between March and August, 2020: a period of intense lockdowns and restrictions on movement) (Jewell et al., 2020; WHO, 2020a). Such treatment interruptions increase the risk of drug resistance as well as of transmission of HIV. There are already indications that the UNAIDS goal of eliminating AIDS by 2030 is now way off track (Govender & Poku, 2021).

An additional consequence of the harsh lockdown measures is the reprehensible behaviour of state authorities who have used violence, intimidation and imprisonment to quell views and activities of political opponents and discipline the noncompliance behaviours of marginalised and poor communities (Aborisade, 2021; Jefferson et al., 2021). Children, the most vulnerable population, have faced school closures, lack of access to immunisation programmes, food insecurity and effects of community level violence, with child protection systems placed under immense strain amidst the pandemic's continuing fallout (Govender et al., 2020).

At the same time, while the end of the pandemic everywhere is being jeopardised by the emergence of new variants of SARS-CoV-2, it is clear that mandated lockdowns and stay-at-home orders have aggravated health, economic and social inequities (Nay, 2020). For instance, in 2020, the hard lockdowns instituted by some countries (among them Ireland, Spain and the U.K. in Europe, and Egypt, Kenya, Nigeria, Rwanda, Sudan, South Africa on the African continent) have had disproportionate and negative socio-economic repercussions in particular on marginalised populations, with economic and financial support for people living in these contexts placed under severe strain or in complete collapse (OECD, 2020b; World Bank, 2020). These latter phenomena were seen throughout the first COVID-19 wave, especially in lower- and middle-income countries (LMICS) with large informal economies, notably countries across Africa (World Bank, 2020). Some countries were able to provide emergency social and financial protection schemes (Ghana and Botswana, for example, stepped up digital financial support transfers, and South Africa created the Solidarity Fund) (ILO, 2020). However, according to South African President Cyril Ramaphosa, these resources have not been enough to mitigate against severe economic hardships which sent many countries' into economic recessions, and which are likely to continue through second and further waves of COVID-19.

The introduction of vaccines in late 2020 introduced hope to a world engulfed in crisis as COVID-19 deaths climbed above 2 million (2,784,377 global deaths; ECDC, 2020; WHO, 2020c). However, the emergence of new variants and rising awareness that therapeutic development in LMICs is being neglected in the race for vaccines that are in short supply, present significant setbacks. As a result, whether vaccines can successfully contribute to curtailing and ending the pandemic depends on their equitable access and rapid distribution globally.

3. Safety vs. (in)security: vaccine access amplifies global inequities

Vaccines have been a major success story of modern medicine. WHO estimates that at least 10 million deaths were prevented between 2010 and 2015 as a result of the Global Vaccine Action Plan, (a framework instituted in 2012, for delivering universal access to vaccines) with millions of lives protected from the suffering and disability associated with diseases such as pneumonia, smallpox, measles, diarrhoea, whooping cough and polio (WHO, 2017).

Since late 2020, 13 COVID-19 vaccines have been authorised for use in different parts of the world, based on different typologies (inactivated or weakened virus vaccines, protein-based vaccines, viral vector vaccines, RNA and DNA vaccines). The rapid development of COVID-19

vaccines, a miracle in itself, seemed to provide a panacea for GHS in the face of COVID-19. Yet issues regarding the efficacy, storage, administration and pricing of vaccines complicate matters.

While all COVID-19 vaccines are reported to be effective at preventing the onset of serious disease, efficacy rates for particularly mild and moderate forms of the disease vary by vaccine type (for AZ see Paul-Ehrlich-Institut, 2021; for Pfizer see Olliaro, 2021). It also remains unclear as to whether these vaccines only provide personal protection – safety – to the inoculated – or whether they interrupt transmission, thereby providing some protection to the community – security (Brüßow, 2020). All the vaccines except the J & J vaccine require two shots to train the immune system well enough to fight the coronavirus, with the mRNA vaccines (Pfizer-BioNTech and Moderna) requiring a complicated cold chain to safely distribute them. Furthermore, there are significant price differences: Moderna (15\$ per dose) and Pfizer-BioNTech (20\$ per dose), are the most expensive vaccines, with the majority of their doses being acquired by high-income countries, including the U.S., Canada and the European Union. AstraZeneca, developed in partnership with the University of Oxford is cheaper (4\$ per dose), yet developing countries are paying more than twice as much per dose as their European counterparts (Zaiets et al., 2021).

Given the above, it is not surprising that the ambitious global plan launched at the advent of COVID-19, the Access to COVID Tools-Accelerator (ACT-A), under the auspices of the World Health Organization (WHO), to reach everyone with vaccines by 2020, was a figment of the global imagination. The technological prowess used in the development of vaccines has masked long standing inequities in their production and delivery with this becoming very apparent during COVID-19 pandemic. Vaccine nationalism rapidly took root in later 2020 and wealthy nations producing, stockpiling and rushing to pre-order vaccine quantities above and beyond even their own needs (covering in some instances 300% of their populations, e.g. Canada, USA, and UK). Developing countries, including Egypt, India and South Africa, are participating in global COVID-19 vaccine trials: many of these vaccines have been pre-ordered by wealthy countries (according to some counts monopolising production through 2022, including through exclusive contracts and patent protections), while their own and other poorer countries' nationals are unlikely to freely access these vaccines for distribution to their own citizens¹ Some countries are also in talks to produce vaccines for local use, and also for the African Union to deliver across the continent (BusinessTech, 2021). However, South Africa's vaccine producing capabilities – honed in the 1990s – should have been primed for use, but were instead arguably sidelined in local and global vaccine supply chains.

The most promising vaccine suitable for less well-resourced health infrastructures (without reliable cold chains) is that developed by AstraZeneca (AZ), currently being produced in India, among other places. On 3 February 2021, data was released that this vaccine also interrupts transmission – a huge advantage on the way to ending the pandemic, and one likely to set off a second race for vaccines access, made all the more cut-throat because the vaccine is much cheaper than the mRNA vaccines by BioNTech and Moderna, and is based on a known (safe) technology. However, the optimism associated with the AZ vaccine has been dealt a major blow because of efficacy concerns regarding new variants of SARS-CoV-2 as well as the vaccine's reported side effects.²

Nonetheless, vaccines such as AZ are likely to become part and parcel of the suit to waive intellectual property rights (patents) to make way for the issuance of compulsory licenses for vaccine production. Such a waiver was proposed by South Africa and India at the World Trade Organization's (WTO) TRIPS (Trade-Related Aspects of Intellectual Property Rights) forum: this proposal been blocked since October 2020, at a potentially huge cost to global health and global health security, especially in poorer countries (see also Gopakumar & Rao, 2021). At the recent 10 March 2021 WTO meeting, richer members, among them the United States, the EU, Japan, Canada and Switzerland, continued to block the motion by over 80 developing countries to waiver patent rights in an effort to boost production of COVID-19 vaccines for poor nations, arguing that the *existing* voluntary license mechanism will enable sufficient supply of medicines and vaccines (EUROACTIV, 2021). However, these existing TRIPS flexibilities have previously been undermined by many

countries through restrictive trade agreements. South Africa, in particular, has had a painful history with patents obstructing access to medicines, especially the failure to secure life-saving medicines during the HIV/AIDS pandemic that cost at least 11 million African lives (EURACTIV, 2021).

In theory, poorer nations are able to secure access to vaccines through the COVAX Facility at the World Health Organization (WHO). Funded by wealthier nation states in a show of multi-lateral solidarity, in practice, COVAX is beset by a number of weaknesses. These include limited provision through which COVAX aims to ensure a vaccine contingent to cover 20% of each country's population, a percentage nowhere near the at least 60% coverage needed to reach herd immunity (Green, 2020; WHO, 2020d); handicaps by bilateral agreements and MoUs between wealthier nations as well as LMICs (including Namibia and South Africa) nations and vaccine researchers/producers allowing these to jump queue ahead of the multilaterally dependent COVAX (WHO); lack of funding (a funding gap of ca. 28 billion USD). In addition, a complimentary mechanism set up by the African Union (African Vaccine Acquisition Task Team, AVAT), while provisionally securing 270 million vaccine doses for Africa, also faces uphill battles to secure further doses to cover a population of 1.2 billion people.

Like previous pandemics, the COVID-19 pandemic and the attendant battle for access to vaccines has once again illustrated the interlinkages between global health, global health security and global inequities. While global health denotes to the health of individuals around the world, global health security refers to when health risk (reduction) is achieved at the population level across the globe (Elbe, 2018; Šehović, 2019). The traditional emphasis on individual (global public) health and imbalanced global priorities reflecting differentiated inequities neglects social determinants, including geographies, socio-economic status, gender, legal recognition (citizenship status), and related health (care) provisions for achieving good population health. Vaccine inequities intensify these existing inequities, stymieing not only individual health, but also the health security of all people around the world.

4. Finding ways to reduce global inequities in health

COVID-19 is not the first, nor will it be the last global pandemic to exacerbate existing global inequities. Reducing those inequities – in vaccine and health care access, in resources and in geo-political alignment – is critical to creating and sustaining genuine global health security. How can real global health security be achieved?

The answer rests on the response to the questions: How do we reduce inequities in health security while achieving pandemic control and pursuing pandemic preparedness? In places with low health system capacity, exacerbated by a lack of access to vaccines (including through resurgent nationalism generally and vaccine nationalism in particular), the most vulnerable, including socio- and economically and legally marginalised populations, people and polities are grappling with both the biological health threat of becoming infected with the novel coronavirus and the sociological, economic and political insecurity fallout as a result of country-level restrictions and lockdowns.

Notwithstanding these challenges, a number of interventions could make it possible to pursue greater global health equity and greater human security centric GHS. While far from being globally accepted, these include:

(1). Knowledge transfers

Knowledge and technology transfer, as well as a waiver of the recognition of intellectual rights depend on voluntary measures. This is in spite of the provisions in the TRIPS agreement at the WTO that includes provisions for compulsory and voluntary licenses, which would enable states with production capacity – such as Brazil and India and South Africa – to produce, in this case, COVID-19 vaccines without paying intellectual property rights' royalties (for a limited time). However, since the USA and the EU appear to be failing to support the C-TAP (COVID-19 Technology

Access Pool) (Green, 2020), the route to compulsory licenses appears shut, and that to voluntary licenses just that – voluntary. Furthermore, while the patent waiver proposal submitted by South Africa and India has faced stiff opposition it is unclear whether it will be supported at the WTO in April 2021. This state of play again illustrates and threatens to further cement inequality between wealthier and resource poorer countries in achieving global pandemic control.

Support for the waiver proposal is gaining with unions and civil society organisations across the global are rallying for the removal of obstacles, including intellectual property rules that hinder timely and affordable access to medical supplies and vaccines (ESPU, 2021) and calling for vaccines to be declared a public good (M&G, 2021).⁵ Decisions at the next WTO general council meeting in April 2021 will send an important signal as to whether developed countries are committed to working in solidarity with developing countries to end the global pandemic. It should also be pointed out that domestic landscapes are sometimes not conducive to equitable access to medicines. For instance, there are calls in some contexts for the fixing up of patent laws (strengthening patentability criteria, putting a stop to patent ‘ever-greening’) which means equitable access to COVID-19 and other life-saving medicines (HIV drugs, cancer treatment).

(2). Mobilising human rights obligations

Human rights instruments offer a further avenue for legal mobilisation to address global inequalities in access to vaccines. International human rights law obliges states to take action, provided they have ratified the relevant treaties (state parties), including the International Covenant on Economic Social and Cultural Rights (ICESCR, 1966) and the International Covenant on Civil and Political Rights (OHCHR, 1976). These treaties guarantee critical rights and outlines associated state obligations that are relevant to the issue of access to life-saving drugs. Dugard et al. (2021) argue for a two-pronged approach to legal mobilisation: First, a temporary IP exception regarding coronavirus technologies; second pressuring states to live up to their international obligations to promote the right to health and to extend technical and financial resources to less well-off nations to address the global pandemic. Such pressure needs to be tied to reputation, and has to be both politically and economically real.

(3). Having an equity focus in the IHR

The International Health Regulations (IHR) (WHO, 2008) is a treaty requiring each country to scale-up and adhere to pandemic preparations, can play a key here in achieving global health security. However, IHR core capacity requirements have been poorly implemented in most countries, particularly in those that are resource-poor and vulnerable (Bartolini, 2021). Surveillance and monitoring is a central pillar of the IHR, yet many countries continue to lack the required capabilities with lack of international political to ensure compliance. The COVID-19 pandemic has shown that while complex in nature, health inequities share common features that can be modified through altering institutions, policies and practices that cause inequitable distribution of power and resources. Implementation of the IHR framework, with global and local accountability, is central to dealing with current and future pandemics.

Since the IHR is tasked with preventing, detecting, assessing and providing a coordinated response to major international public health threats, pairing IHR with an equity framework to unveil epidemiological uncertainties and evidence of inequities of novel diseases like COVID-19 is central to achieving pandemic control especially in under-resourced parts of the globe and ultimately around the world. The failure of the IHR can be attributed partly to assuming parity in health systems across the globe. Incorporating an Equity Matrix (Ismail et al., 2021) helps to illustrate an array of overlapping factors that converge to produce inequities as well as identifying the practical interventions to reduce these varied inequities. Paired with an accountability mechanism to reward compliance, surveillance and monitoring married to an equity emphasis, could be

mandated and monitored through the IHR, coordinated at country-level through National Focal Points (NFPs), and assessed by the Equity Matrix to implement global health security. This however requires a multi-lateral mechanism such as the WHO's World Health Assembly to take this up and steer the agenda. The U.S.-Biden administration revival of support for the WHO's campaign on fair vaccine distribution around the globe is an important step towards this cause (Keaton, 2021).

(4). Prioritising COVID-19 across health programming

COVID-19 prevention and vaccine roll-out programmes, including dealing with vaccine hesitancy, require increased investment in strengthening universal health systems, especially primary health care (PHC) oriented public health services.⁴ Comprehensive public health and PHC services that provide the most equitable and cost-effective first contact for surveillance, prevention, care and referral for pandemic responses and for addressing the many other areas of growing health need should be given priority (Loewenson et al., 2020). Evident inequalities (fragmented/segmented health systems, high social inequality, and limited investment in the healthcare sector) in the health systems exposed by the COVID-19 pandemic highlight the need to adopt innovative strategies for planning and organising PHC such that continuity of care is ensured at all levels (Mash et al., 2020; Rawaf et al., 2020).

The COVID-19 pandemic has shown that even the best resourced countries, cushioned by strong health systems can still respond in deeply inadequate ways to public health emergencies. Lessons can be learnt from low-income and middle-income countries that have used public health strategies like integrated programming (SRH, HIV and TB care), health literacy, contact tracing, door to door health care and the value of community health workers in localising the public health response (see, for example, epidemic responses to Ebola in West Africa and HIV in South Africa) (Afolabi et al., 2020; Bedson et al., 2020; Hargreaves et al., 2020).

(5). Community based behavioural responses

Widespread community transmission of SARS-CoV-2 experienced in most countries requires population-level adoption of protective behaviours to limit community transmission, in addition to biomedical interventions, such as vaccines (Jalloh et al., 2020). Long-term protective behaviours can be achieved by adopting bottom-up behavioural responses. The value in community-driven approaches is the focus on negotiated modes of behavioural adoption that respect individuals' autonomy to weigh their need to access public and social spaces (e.g. schools, offices, and banks) against their willingness to comply with the risk mitigation measures to gain access to these elevated-risk settings (Jalloh et al., 2020). This approach can work by integrating important community institutions (local community councils and forums) (which can grant or deny access) to promote key protective behaviours and to sustain trust towards continuous uptake of protective behaviours. Fostering social capital and meaningful involvement of local leadership accelerated control of HIV among different communities including gay men in the USA and sex workers in India and Thailand (Hargreaves et al., 2020) and communities' responses in South Africa (Campbell et al., 2007). In the coming period, we need to campaign and educate communities about vaccines and monitor implementation through mass community mobilisation. Vigilance is also needed to call out forms of inequity, corruption theft and mismanagement of health resources.

5. Conclusion

The COVID-19 pandemic public health crisis is fast becoming an economic, social and a human rights' crisis all at once. Governments should ensure that human rights' and financial barriers do not prevent people from accessing COVID-19 technologies. International cooperation should be at the forefront, and high-income countries need to assist low-income countries through flexible

policies on intellectual property, access to the latest technology and research on potential treatments, and equitable access to affordable vaccines (Forman & Kohler, 2020; Šehović, 2015). The latter requires a renewed commitment to multilateralism in all its facets: increased knowledge and technology generation and exchange; international collaboration at the WHO and the WTO; inter-nationalism not bilateralism in therapeutics and vaccine development, production, procurement and distribution, multilaterally, for instance through GAVI and COVAX and C-TAP (Sachs et al., 2021). In the frenzy to secure vaccines, it has been forgotten that the health security of the world rests on the universal access to and the creation of sustainable and dependable health care. Inequities in the health security risk also being exacerbated by the possibility of vaccine passports (Cohen, 2021): such inequities in access to health security ultimately increase the risk of a prolonged COVID-19 pandemic around the world and presages the next pandemic, whose virulence might well be higher than that of COVID-19.

A global pandemic outbreak can never be contained with biomedical, vaccine or safety measures alone. Only a global health security plan, including prevention, and accountably implemented measures, can achieve pandemic control because it will always be impossible to inoculate or medicate – continuously – the entire world's population. Against the backdrop of reasserted but misguided nationalisms, we need state responsibility structures, but need them to be interlinked to serve the health security of both state nationals and the stateless. Such strengthening of global health systems needs to be backed by access to essential health technologies and to increased funding in public health and PHC services. Beyond the health system, social determinants of health, most of which have been compromised by the response to the pandemic need to be addressed through a human rights-based approach that emphasises provision of equitable and non-discriminatory services with a priority focus on vulnerable groups to counter the health impacts of physical distancing, quarantine, and other restrictive measures. Civil society organisations and people around the world can hold governments (in developed and developing countries) to account to commit to principles of universality, evidence based science, equal treatment and affordability to health care. Governments – and individuals and – the world over should mobilise for global health security to protect and secure their citizens – by also protecting and securing all persons.

Notes

1. South Africa has acquired its first batch of 500,000 vaccines at no cost from J & J for roll-out to health care workers, but will pay for later vaccine consignments. Acquisition of more vaccines will depend on stock availability and approval by the South African Health Products Regulatory Authority (SAHPRA) for wider use.
2. Recent data has shown that the University of Oxford / AstraZeneca (AZ) Covid-19 vaccine is not effective in protecting against the new variant found in South Africa (501.YV2). The South African government has subsequently halted the AZ vaccine roll-out to health care workers. However, some experts indicate that the vaccine is safe and protects against severe forms of COVID-19 and should be rolled out to health care workers.
3. Civil has a history in the health response. For example, the central role of the Treatment Action Campaign (TAC) between 1999 and 2003, in South Africa, in promoting a rights based and patient driven response to accessing HIV treatment eventually forced the government of the day to develop a National Treatment Plan and the roll-out of HIV treatment.
4. The revitalising PHC has been WHO program in many African countries since 2010 and has contributed significantly to HIV and TB surveillance and the roll-out of HIV and TB treatment across Southern and Eastern Africa.

Acknowledgement

The views expressed in this paper are those of the authors and do not necessarily reflect those of their institutions or funders.

Disclosure statement

No potential conflict of interest was reported by the author(s).

References

- Aborisade, R. A. (2021). Accounts of unlawful use of force and misconduct of the Nigerian police in the enforcement of COVID-19 measures. *Journal of Police and Criminal Psychology*, 1–13, online 3 February. <https://doi.org/10.1007/s11896-021-09431-4>
- Afolabi, M. O., Folayan, M. O., Munung, N. S., Yakubu, A., Ndow, G., Jegede, A., Ambe, J., & Kombe, F. (2020). Lessons from the Ebola epidemics and their applications for COVID-19 pandemic response in sub-Saharan Africa. *Developing World Bioethics*, online 12 July. <https://doi.org/10.1111/dewb.12275>
- Bambra, C., Riordan, R., Ford, J., & Matthews, F. (2020). The COVID-19 pandemic and health inequalities. *Journal of Epidemiology and Community Health*, 74(11), 964–968. <https://doi.org/10.1136/jech-2020-214401>
- Bartolini, G. (2021). The failure of 'core capacities' under the WHO International Health Regulations. *International & Comparative Law Quarterly*, 70(1), 233–250. <https://doi.org/10.1017/S0020589320000470>
- Bedson, J., Jalloh, M. F., Pedi, D., Bah, S., Owen, K., Oniba, A., & Hébert-Dufresne, L. (2020). Community engagement in outbreak response: Lessons from the 2014–2016 Ebola outbreak in Sierra Leone. *BMJ Global Health*, 5(8), e002145. <https://doi.org/10.1136/bmjgh-2019-002145>
- Brüssow, H. (2020). Efforts towards a COVID-19 vaccine. *Environmental Microbiology*, 22(10), 4071–4084. <https://doi.org/10.1111/1462-2920.15225>
- BusinessTech. (2021). *South African firm to help develop COVID-19 vaccines for the rest of Africa*. <https://businesstech.co.za/news/government/469958/south-african-firm-to-help-develop-covid-19-vaccines-for-the-rest-of-africa/>.
- Cáceres, S. B. (2011). Global health security in an era of global health threats. *Emerging Infectious Diseases*, 17(10), 1962–1963. <https://doi.org/10.3201/eid1710.101656>
- Campbell, Cathy, Nair, Y., & Maimane, S. (2007). Building contexts that support effective community responses to HIV/AIDS: A South African case study. *American Journal of Community Psychology*, 39(3–4), 347–363.
- CDC. (2020). *Emerging SARS-CoV-2 variants*. <https://www.cdc.gov/coronavirus/2019-ncov/more/science-and-research/scientific-brief-emerging-variants.html#:~:text=Multiple%20SARS%2DCoV%2D2%20variants,a%20large%20number%20of%20mutations.>
- Cohen, J. (2021, 3 March). Covid-19 vaccine passports could exacerbate Global Inequities. *Forbes*, online.
- Dugard, J., Handmaker, J., & Porter, B. (2021, 18 February). *Mobilising human rights to address coronavirus vaccine apartheid*. *Opinio Juris*.
- ECDC. (2020). *Integrated COVID-19 response in the vaccination era*. <https://www.ecdc.europa.eu/sites/default/files/documents/Integrated-COVID-19-response-vaccination-era.pdf>.
- Elbe, S. (2018). *Pandemics, pills, and politics: Governing global health security*. JHU Press.
- ESPU (European Public Service Union). (2021). *Trade rules must not impede access to COVID-19 vaccines and medical supplies*. <https://www.epsu.org/article/trade-rules-must-not-impede-access-covid-19-vaccines-and-medical-supplies>.
- EUROACTIV. (2021). *Rich countries block push by developing nations to waive COVID vaccine patent rights*. <https://www.euractiv.com/section/economy-jobs/news/rich-countries-block-push-by-developing-nations-to-waive-covid-vaccine-patents-rights/>.
- Euronews. (2020). *Coronavirus: Half of humanity now on lockdown as 90 countries call for confinement*. <https://www.euronews.com/2020/04/02/coronavirus-in-europe-spain-s-death-toll-hits-10-000-after-record-950-new-deaths-in-24-hou>.
- Forman, L., & Kohler, J. C. (2020). Global health and human rights in the time of COVID-19: Response, restrictions, and legitimacy. *Journal of Human Rights*, 19(5), 547–556. <https://doi.org/10.1080/14754835.2020.1818556>
- Gavi. (2021). *There are four types of COVID-19 vaccines. The fight against COVID-19 has seen vaccine development move at record speed, with more than 170 different vaccines in trials. But how are they different from each other and how will they protect us against the disease?* Retrieved March 30, from <https://www.gavi.org/vaccineswork/there-are-four-types-covid-19-vaccines-heres-how-they-work>.
- Gopakumar, K. M., & Rao, C. (2021). *TWN info service on UN sustainable development*. <https://www.twn.my/title2/unsd/2021/unsd210203.htm>.
- Govender, K., Cowden, R. G., Nyamaruze, P., Armstrong, R. M., & Hatane, L. (2020). Beyond the disease: Contextualized implications of the COVID-19 pandemic for children and young people living in Eastern and Southern Africa. *Frontiers in Public Health*. <https://doi.org/10.3389/fpubh.2020.00504>.
- Govender, K., & Poku, N. K. (2021). *Introduction*. In K. Govender & N. K. Poku (Eds.), *Preventing HIV among young people in Southern and Eastern Africa: Emerging evidence and intervention strategies* (pp. 1–7). Routledge.
- Green, A. (2020). *At WTO, a battle for access to COVID-19 vaccines*. <https://www.devex.com/news/at-wto-a-battle-for-access-to-covid-19-vaccines-98787>.
- Hargreaves, J., Davey, C., Auerbach, J., Blanchard, J., Bond, V., Bonell, C., Burgess, R., Busza, J., Colbourn, T., Cowan, F., Doyle, A., Hakim, J., Hensen, B., Hosseinipour, M., Lin, L., Johnson, S., Masuka, N., Mavhu, W., Mugurungi, O., ... Yekeye, R. (2020). Three lessons for the COVID-19 response from pandemic HIV. *The Lancet HIV*, 7(5), e309–e311. [https://doi.org/10.1016/S2352-3018\(20\)30110-7](https://doi.org/10.1016/S2352-3018(20)30110-7)
- ILO. (2020). *Social protection spotlight*. https://www.ilo.org/wcmsp5/groups/public/—ed_protect/—soc_sec/documents/publication/wcms_744612.pdf.

- Ismail, S. J., Tunis, M. C., Zhao, L., & Quach, C. (2021). Navigating inequities: A roadmap out of the pandemic. *BMJ Global Health*, 6(1), e004087. <https://doi.org/10.1136/bmjgh-2020-004087>
- Jalloh, M. F., Wilhelm, E., Abad, N., & Prybylski, D. (2020). Mobilize to vaccinate: Lessons learned from social mobilization for immunization in low and middle-income countries. *Human Vaccines & Immunotherapeutics*, 16(5), 1208–1214. <https://doi.org/10.1080/21645515.2019.1661206>
- Jefferson, A. M., Caracciolo, G., Körner, J., & Nordberg, N. (2021). Amplified vulnerabilities and reconfigured relations: COVID-19, torture prevention and human rights in the global south. *State Crime Journal*, 10(1), 147–169. <https://doi.org/10.13169/statecrime.10.1.0147>
- Jewell, B. L., Mudimu, E., Stover, J., Ten Brink, D., Phillips, A. N., Smith, J. A., Martin-Hughes, R., Teng, Y., Glaubius, R., Mahiane, S. G., Bansu-Matharu, L., Taramusi, I., Chagoma, N., Morrison, M., Doherty, M., Marsh, K., Bershteyn, A., Hallett, T. B., & Kelly, S. L. (2020). Potential effects of disruption to HIV programmes in sub-Saharan Africa caused by COVID-19: Results from multiple mathematical models. *The Lancet HIV*, 7(9), e629–e640. [https://doi.org/10.1016/S2352-3018\(20\)30211-3](https://doi.org/10.1016/S2352-3018(20)30211-3)
- Keaton, J. (2021). *Biden's US revives support for WHO, reversing Trump retreat*. <https://apnews.com/article/us-who-support-006ed181e016afa55d4cea30af236227>.
- Lal, A., Erundu, N. A., Heymann, D. L., Gitahi, G., & Yates, R. (2020). Fragmented health systems in COVID-19: Rectifying the misalignment between global health security and universal health coverage. *The Lancet*, 397(10268), 61–67. [https://doi.org/10.1016/S0140-6736\(20\)32228-5](https://doi.org/10.1016/S0140-6736(20)32228-5)
- Lisk, F. (2009). *Global institutions and the HIV/AIDS epidemic: Responding to an international crisis*. Routledge.
- Loewenson, R., Accoe, K., Bajpai, N., Buse, K., Abi Deivanayagam, T., London, L., Méndez, C. A., Mirzoev, T., Nelson, E., Parray, A. A., Probandari, A., Sarriot, E., Tetui, M., & van Rensburg, A. J. (2020). Reclaiming comprehensive public health. *BMJ Global Health*, 5(9), e003886. <https://doi.org/10.1136/bmjgh-2020-003886>
- Mash, R., Goliath, C., & Perez, G. (2020). Re-organising primary health care to respond to the Coronavirus epidemic in Cape Town, South Africa. *African Journal of Primary Health Care & Family Medicine*, 12(1), 2607. <https://doi.org/10.4102/phcfm.v12i1.2607>
- M&G (Mail & Guardian). (2021). *Towards a people's vaccine campaign: A call to action*. Retrieved January 15, <https://mg.co.za/special-reports/2021-01-15-towards-a-peoples-vaccine-campaign-a-call-to-action/>.
- Modesti, P. A., Wang, J., Damasceno, A., Agyemang, C., Van Bortel, L., Persu, A., Zhao, D., Jarraya, F., Marzotti, I., Bamoshmoosh, M., Parati, G., & Schutte, A. E. (2020). Indirect implications of COVID-19 prevention strategies on non-communicable diseases. *BMC Medicine*, 18(1), 1–16. <https://doi.org/10.1186/s12916-020-01723-6>
- Moon, S., Rottingen, J. A., & Frenk, J. (2017). Global public goods for health: Weaknesses and opportunities in the global health system. *Health Economics Policy and Law*, 12(2), 195–205. <https://doi.org/10.1017/S1744133116000451>
- Nay, O. (2020). Can a virus undermine human rights? *The Lancet Public Health*, 5(5), e238–e239. [https://doi.org/10.1016/S2468-2667\(20\)30092-X](https://doi.org/10.1016/S2468-2667(20)30092-X)
- OECD. (2020a). *The territorial impact of COVID-19: Managing the crisis across levels of government*. <http://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1/>.
- OECD. (2020b). *COVID-19 and Africa: Socio-economic implications and policy responses*. <https://www.oecd.org/coronavirus/policy-responses/covid-19-and-africa-socio-economic-implications-and-policy-responses-96e1b282/>.
- Olliaro, P. (2021). What does 95% COVID-19 vaccine efficacy really mean? *The Lancet*, online 17 February, [https://doi.org/10.1016/S1473-3099\(21\)00075-X](https://doi.org/10.1016/S1473-3099(21)00075-X)
- Paul-Ehrlich-Institut. (2021). *Safety and efficacy of the COVID-19 Vaccine AstraZeneca*. Retrieved February 16, 2021 from, <https://www.pei.de/EN/newsroom/hp-news/2021/210218-safety-efficacy-covid-19-vaccine-astra-zeneca-information-pei.html>.
- Rawaf, S., Allen, L. N., Stigler, F. L., Kringos, D., Quezada Yamamoto, H., van Weel, C., & Global Forum on Universal Health Coverage and Primary Health Care. (2020). Lessons on the COVID-19 pandemic, for and by primary care professionals worldwide. *European Journal of General Practice*, 26(1), 129–133. <https://doi.org/10.1080/13814788.2020.1820479>
- Riley, T., Sully, E., Ahmed, Z., & Biddlecom, A. (2020). Estimates of the potential impact of the COVID-19 pandemic on sexual and reproductive health in low-and middle-income countries. *International Perspectives on Sexual and Reproductive Health*, 46, 73–76. <https://doi.org/10.1363/46e9020>
- Sachs, J. D., Karim, S. A., Akinin, L., Allen, J., Brosbøl, K., Barron, G. C., Daszak, P., Fernanda Espinosa, M., Gaspar, V., Gavi, A., Haines, A., Hotez, P. J., Koundouri, P., Larráin B. F., Lee, J.-K., Pate, M., Polman, P., Ramos, G., Reddy, K. S., ... Bartels, J. (2021). Priorities for the COVID-19 pandemic at the start of 2021: Statement of the Lancet COVID-19 commission, online Comment, 12 February. *The Lancet*. [https://doi.org/10.1016/S0140-6736\(21\)00388-3](https://doi.org/10.1016/S0140-6736(21)00388-3)
- Šehović, A. B. (2015). Where are rights? Where is responsibility? Who acts for global public health? Air & space power. *Journal & Francophonie*, 6(3), 35–48.

- Šehović, A. B. (2019). Towards a new definition of health security: A three-part rationale for the twenty-first century. *Global Public Health*, 15(1), 1–12. <https://doi.org/10.1080/17441692.2019.1634119>
- WHO. (1948). *Constitution of the World Health Organization*. <https://web.archive.org/web/20140321111716/http://apps.who.int/gb/bd/pdf/bd47/en/constitution-en.pdf>
- WHO. (2008). *International Health Regulations* (2005). 2nd ed. (who.int).
- WHO. (2017). *The power of vaccines: Still not fully utilized*. <https://www.who.int/publications/10-year-review/vaccines/en/>.
- WHO. (2019). *Naming the coronavirus disease (COVID-19) and the virus that causes it*. [https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-\(covid-2019\)-and-the-virus-that-causes-it](https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it).
- WHO. (2020a). *Coronavirus disease (COVID-19): Herd immunity, lockdowns and COVID-19*. <https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-and-covid-19>.
- WHO. (2020b). *WHO: Access to HIV medicines severely impacted by COVID-19 as AIDS response stalls*. <https://www.who.int/news/item/06-07-2020-who-access-to-hiv-medicines-severely-impacted-by-covid-19-as-aids-response-stalls>.
- WHO. (2020c). *The vaccines success story gives us hope for the future*. <https://www.who.int/news-room/feature-stories/detail/the-vaccines-success-story-gives-us-hope-for-the-future>.
- WHO. (2020d). *Access and allocation: How will there be fair and equitable allocation of limited supplies?* <https://www.who.int/news-room/feature-stories/detail/access-and-allocation-how-will-there-be-fair-and-equitable-allocation-of-limited-supplies>.
- World Bank. (2020). *World Bank's response to COVID-19 (Coronavirus) in Africa*. <https://www.worldbank.org/en/news/factsheet/2020/06/02/world-banks-response-to-covid-19-coronavirus-in-africa>.
- Zaiets, K., Borresen, J., & Weintraub, K. (2021). *Comparing the COVID-19 vaccines. Three vaccines are authorized for use in the United States and another two are coming soon. Here is a closer look at what we know so far*. USA Today, 27 March. Retrieved March 30, from <https://www.usatoday.com/in-depth/graphics/2021/03/27/comparing-covid-19-vaccines/6806600002/>.