

# The Pandemic Treaty, the Pandemic Fund, and the Global Commons: our scepticism

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## ABSTRACT

The call to strengthen global health governance against future outbreaks through a binding treaty on pandemics has attracted global attention and opinion. Yet, few of these perspectives have reflected the voices from early career global health professionals in Africa. We share our perspectives on the Pandemic Treaty, and specifically our scepticism on the limitations of the current top-down approach of the treaty, and the need for the treaty to centre equity, transparency and fairness to ensure equitable and effective cooperation in response to global health emergencies. We also highlight the challenges intergovernmental organisations for health faced in coordinating nation states during the COVID-19 crisis and how a Pandemic Treaty would address these challenges. We argue that lessons from the COVID-19 pandemic provide a critical opportunity to strengthen regional institutions in Africa—particularly in a multipolar world with huge disparities in power and resources. However, addressing these challenges and achieving this transformation may not be easy. Fiscal space in many countries remains constrained now more than ever. New tools such as the Pandemic Fund should be designed in ways that consider the specific needs and capacities of countries. Therefore, strengthening countries' capacities overall requires an increase in domestic investment. This paper calls for wider structural reforms such as debt restructuring among other tools to strengthen countries' capacities.

## INTRODUCTION

The failure of the international system to collectively combat a shared biological threat in the face of COVID-19 has ignited interest in postpandemic reforms to strengthen global health governance against future outbreaks. In this regard, a year ago, during a second Special Session of the World Health Assembly, WHO member states set up an Intergovernmental Negotiating Body (INB) to draft and negotiate a convention, agreement or other international instruments on pandemic prevention, preparedness and

response, the so-called 'Pandemic Treaty'.<sup>1</sup> Following its third meeting in December 2022, the INB Bureau released a conceptual Zero Draft Text framework of member states' aspirations.<sup>2</sup> The final document resulting from this diplomatic process will be presented to the 77th World Health Assembly by 2024.

Parallel to this process, negotiations for the revision of the International Health Regulations (IHR) are also ongoing. The IHR is the existing legally binding agreement which defines the steps for reporting disease outbreaks to WHO and necessary control measures. However, COVID-19 exposed the limitations of the IHR reporting system—and in particular, its limited power to ensure states' compliance or report accurately on their core response and preparedness capacities.<sup>3</sup> These limitations led to a call for reform in the form of a legally binding pandemic instrument to strengthen global response to pandemics—the Pandemic Treaty.

In calling for these reforms, a plethora of perspectives have been offered on the form, scope and content<sup>4-6</sup> of such a treaty, but very few<sup>7</sup> have reflected the voices of African scholars. Duff and colleagues envisioned a WHO with the financial, political and legal autonomy to coordinate powerful state actors.<sup>5</sup> Labonté *et al* have also discussed the treaty against the idea of reforming the IHR, emphasising the importance of inputs from the global south.<sup>6</sup> Debates on whether a treaty can address the needs of the global south continue,<sup>8</sup> with many calling for equity at the centre in rethinking the paradigm of global health security.<sup>9</sup>

For any treaty governance to guarantee equity for developing countries and health security for all, we need an independent and empowered WHO, and states must be willing to cede a part of their sovereignty. Global health emergencies, such as pandemics, are



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### SUMMARY BOX

- ⇒ The COVID-19 pandemic has revealed some of the challenges intergovernmental organisations for health face in coordinating nation states during a global health emergency. Efforts to strengthen health emergency governance through a review of the international health regulations and creation of a binding treaty on pandemics as well as a Pandemic Fund are ongoing.
- ⇒ While the treaty aims to promote considerations on equitable access to tools for ensuring health security for all and a stronger WHO, states compliance with such norms faces enormous challenges, given the imbalances in power relations in the international system, where the autonomy of States reigns supreme.
- ⇒ These challenges provide opportunities to build stronger regional institutions and for countries in Africa to seek regional solutions to local challenges. However, a high level of debt servicing to health expenditure could potentially hinder domestic reforms to strengthen health emergency preparedness in the continent.
- ⇒ The governance of the Pandemic Treaty and Pandemic Fund must recognise the limitations of the current top-down pattern of global health governance and work towards more equitable and effective cooperation in response to global health emergencies.
- ⇒ Such actions require a concerted, comprehensive and multifaceted approach that addresses the full range of challenges faced by countries and inclusion of low-income and middle-income countries in the design and implementation of the Pandemic Treaty and the Pandemic Fund. Regional institutions play a valuable role in promoting global health security by working collaboratively with national and international institutions to strengthen countries' capacities to prepare, detect and respond to public health threats.
- ⇒ In addition to the World Bank Pandemic Fund, building a resilient world against pandemics also requires a combination of efforts that would increase domestic investment from developing countries. This could be addressed through access to development finance, capital market and debt restructuring among other tools.

transnational challenges that require collective action and global cooperation. Yet, at the core of COVID-19 response was a tension between statist and globalist objectives on health security discourse.<sup>10</sup> Wenham *et al* have explored some of these tensions, demonstrating the potential futility of much of the treaty aspirations if these tensions are not addressed.<sup>11</sup>

As early career global health professionals, researchers and scholars who are based in or from Africa, we build on these concerns, with ours focussing on the need to uphold equity, fairness and transparency. The IHR was developed at a time when countries embraced globalisation in a unipolar world that saw the USA as a hegemon. However, since then, the world has changed significantly and the global polity is even more fragmented than the victor-dominated post-World War II era that saw the emergence of the WHO and subsequently, adoption of International Sanitary Regulations in 1951 (renamed IHR in 1969).

Against this backdrop, we argue that COVID-19 provides opportunities to strengthen regional institutions in the global health security architecture, in particular, the way we finance, govern and ensure the development and use of health technology and other public goods during

health emergencies, especially an increasingly polarised world with persisting disparities in power and resources.<sup>12</sup> However, attaining these transformations in Africa is not without challenge. Despite a continental approach to strengthening health security in Africa, fiscal space to achieve this in many countries remains constrained. We conclude by highlighting how newly established instruments such as the World Bank Pandemic Fund for the global commons could be operationalised to better reflect the interests of African countries, and the need for greater domestic investment in health.

### COVID-19 REVEALED THE LIMITATIONS OF THE INTERNATIONAL HEALTH REGULATIONS

When the WHO declared SARS-CoV-2, the virus which caused COVID-19 disease a Public Health Emergency of International Concern (PHEIC), the WHO's highest alarm in response to an infectious disease outbreak, 'none of us will be safe until everyone is safe' was the mantra for rallying global solidarity. The rapid spread of the virus beyond the walls of China signified an imminent danger and the cosmopolitan norms embedded in WHO's IHR was seen as central to international cooperation among states. The IHR which was last revised in 2005 under article 21 of WHO's constitution and entered into force in 2007 has been a key mechanism for global health emergency governance. Among other functions, the IHR empowers the WHO Director General to declare a PHEIC and make temporary recommendations in a way that minimises interference to international travels and trade.

Yet, for COVID-19, despite WHO's plea for collective action, state-centred, nationalistic responses prevailed.<sup>3 11</sup> Many countries deviated from WHO's recommendations, abandoned platitudes of solidarity and pursued isolationist policies. We saw near total shutdown of borders, bans on export of medical supplies and the rise of 'vaccine nationalism'. Even though such policies proved to be ineffective, they conflict with science and produce grossly inequitable outcomes.<sup>13 14</sup>

COVID-19 further exploited the geopolitical cracks between the major powers, centred on the origin of the virus and demonstrated the limitations of multilateral institutions in coordinating nation-states.<sup>15 16</sup> These challenges impeded WHO's efforts to mount an effective global response and prevented poorer countries with low economic and political bargaining power in accessing essential medical supplies. As Fidler argues, COVID-19 shredded 'the perennial claim that a harmony of interests exists between low-income and high-income countries on health security'.<sup>17</sup>

### THE AFRICAN EXPERIENCE AND RESPONSE TO INEQUITIES IN THE GLOBAL EMERGENCY PREPAREDNESS SYSTEM

Africa's response to COVID-19 exceeded the expectations of many in the global community. African countries, led by the Africa Centres for Disease Control and

Prevention (Africa CDC) and through the African Union (AU), rapidly embraced a joint strategy in addressing some of the gaps in their response capacity. In the wake of the pandemic, we saw strong collaboration between the public-health community, political decision-makers and regional development banks in Africa. Days after the first case of COVID-19 was reported in Africa, African Union (AU) Health Ministers agreed to a Joint Continental Strategy for COVID-19, committing to cooperate in response to the pandemic.<sup>18</sup> This contrasts with some of the initial challenges faced by other regional bodies, such as the EU, in coordinating vaccine purchase and delivery when vaccines became available.<sup>19 20</sup> This synergy across Africa however, led by the Africa CDC, led to innovations/initiatives such as the Partnership to Accelerate COVID-19 testing, the African Vaccine Acquisition Task Force and the Africa Medical Supply Platform that increased testing capacities and enabled pool procurement of essential medical supplies at a fair and fixed price.<sup>21</sup>

These measures helped in mitigating viral spread. However, much of the continent still faced significant challenges in access to COVID-19 vaccines against the backdrop of vaccine hoarding by wealthier countries,<sup>14</sup> export restrictions<sup>22</sup> and an intellectual property rights regime which monopolises scientific knowledge for health innovations.

The absence of a dispersed manufacturing system for vaccines meant African countries had to rely on COVAX, which had promised to secure timely access to vaccines for all countries regardless of their income level. However, the COVAX facility was pushed down the queue of buyers by richer countries who stockpiled doses that were in excess of their population need.<sup>23</sup> In instances where vaccines eventually arrived in Africa, supplies were often too little, too late or near to if not expired.<sup>24</sup> The unpredictability of supplies was a challenge for long-term planning by countries. Although supply chain bottleneck has since improved, the erosion of multilateralism and the subjugation of the health of poorer countries to the security needs of richer countries was predictably inequitable.

### THE CHALLENGES OF A PANDEMIC TREATY IN AN UNEQUAL WORLD

Proponents of the treaty believe that it will 'foster an all-of-government and all-of-society approach, strengthening national, regional and global capacities and resilience to future pandemics'.<sup>25</sup> While this is a worthy objective and such regulations for international health could strengthen global health security, including trade, transportation and the environment,<sup>26</sup> and could increase access to medicines—especially for developing countries during emergencies—in practice, where the will of states reigns supreme in the international system, it may not guarantee a unified or equitable response in the event of another outbreak.<sup>27</sup>

COVID-19 has shown us some of the challenges inter-governmental organisations faced in ensuring nation states comply with international rules during public health emergencies. Africa's dependence on other countries, especially for essential diagnostics and vaccines, rendered the continent vulnerable. Moreover, some of the major stakeholders who championed the treaty talks are the same high-income-countries who imposed undue travel restrictions, hoarded vaccines and have spent 2 years resisting the IP Waiver proposed by India and South Africa in 2020.<sup>28</sup> Without caution, the preponderance of major stakeholders from developed nations in the treaty's development may lead to a top-down treaty approach.<sup>29</sup>

Claims that States' non-compliance with the IHR or their failure to abide by equitable vaccine-sharing mechanisms such as COVAX requires a treaty, need to consider why such a new instrument would generate the political commitments that these existing tools could not. What incentives would a treaty offer that could make political leaders behave differently during another outbreak, and choose not to hoard vaccines and instead prioritise populations who are at risk thousands of miles away? Particularly as many governments are driven by appeasing their electorate, who will hold them accountable if they fail to deliver quickly enough.

Faviero and colleagues have suggested embedding an independent oversight mechanism in the treaty that could hold states accountable.<sup>30</sup> For instance, linking countries' compliance with preparedness and response as a criterion for IMF periodic evaluation of their economic indices. Similarly, Hannon *et al* have called for the elevation of pandemic governance to the level of the United Nation (UN) General Assembly.<sup>31</sup> While it seems principled in theory, however, such an approach risks undermining one of the aims of the treaty—to strengthen the powers of WHO. Yet, these suggestions barely address mainstream considerations on equity for developing countries.

As Moon and Kickbusch argue, the challenges of ensuring that states comply with international rules highlights 'an enduring feature of the global system: the self-interested behaviour of sovereign states especially, when their perceived interests lie elsewhere'.<sup>32</sup> From COVID-19 to Mpox outbreak, there is little about these events that have reflected a change in the prioritisation of the security needs of powerful state actors even as treaty negotiations are ongoing.<sup>33</sup> Rather, these tragedies 'teaches age-old lessons about the collateral damage caused by great power machinations, the hypocrisy of high-income countries on equity, and the never-ending neglect of the health problems that low-income nations disproportionately experience'.<sup>34</sup>

So, irrespective of the treaty aspirations or subsequent outcomes, global health security as Rushton asserts, 'has always been (and will continue) to be defined through practice' and such practices as multiple PHEIC has shown us 'is inevitably fundamentally affected by the distribution of power in the international system'.<sup>35</sup>



What this implies is that Africa must more consistently and effectively assume responsibility for its own health security through a coordinated and integrated approach as demonstrated in the wake of the COVID-19 pandemic

### CHANGING THE STATUS QUO—A NEW PUBLIC HEALTH ORDER IN AFRICA

At the sidelines of the United Nations General Assembly in September 2022 in New York, African leaders made a call for a New Public Health Order.<sup>36</sup> As opposed to colonial models of development, the New Public Health Order represents a roadmap for sustainable health outcomes and health security in Africa that is defined by five pillars. These include: strong African Public Health Institutions; Investment in Public Health Workforce and Leadership Programs; Increased Domestic Investment in Health; Respectful, Action-Oriented Partnership and Expanded Manufacturing of Vaccines and Diagnostics.

This move by African leaders further reiterates the earlier push by the Africa CDC for an increase in country leadership and ownership, and regional solutions in addressing health security and inequities in the aftermath of the West Africa Ebola Outbreak.<sup>37</sup> The same push was also evident in the wake of COVID-19 pandemic and has become even more crucial given the gross inequities in access to diagnostics, therapeutics and vaccines that plagued the continent for COVID-19.<sup>21</sup>

Thus, a key focus of the new public health order is the expansion of manufacturing of medical products (vaccines, therapeutics and diagnostics). An example of this is the Africa CDC–AU-led Partnership for Africa Vaccine Manufacturing which aims to scale the number of vaccines manufactured in Africa from 1% in 2020 to 60% by 2040.<sup>38</sup> Several continental initiatives to support this vision are also gaining momentum such as the recently ratified Africa Medicines Agency—a specialised institution of the AU focused on harmonising regulatory functions among states' parties and African regional economic communities.<sup>39</sup> In addition, the Africa Development Bank (AfDB) has established a foundation—the Africa Pharmaceutical Technology Foundation—to finance and facilitate access to technologies.<sup>40</sup> The WHO has also established a hub for mRNA vaccines in South Africa with links to other countries in Africa, to further ensure technology transfer and specialised training for local manufacturers.

While these efforts are promising, they are not without their challenges. The ultimate viability of local manufacturing in Africa speaks to a broader set of considerations that needs to be addressed. These include incentives that would derisk investment and guarantee predictability in demands. Although, there are continental efforts to harmonise markets in Africa to facilitate economies of scale such as the implementation of a common regulatory framework, a platform for pool procurement and the Africa Free Trade Area Agreement.<sup>41</sup> Additionally, there is a rising debt burden amidst newer loans and

austerity measures instituted by international financial institutions, which has led to a reversal in social sector spending, including those on health commodities in many low-income and middle-income countries according to a report by Oxfam.<sup>42 43</sup> This debt burden has been further aggravated by the pandemic, rising interest rates and war and instability in some parts of Europe.<sup>44</sup>

While development loans may have spillover effects on population health, the ensuing debt servicing requirements may have detrimental effect on health through constraining fiscal space for government health expenditures.<sup>45</sup> As such, countries' high ratio of debt servicing to health expenditure in Africa could potentially hinder domestic health emergency preparedness reforms, such as efforts to strengthen regional supply chains and access to medicines during emergencies. The temporary halt of COVID-19 vaccine production at Aspen in South Africa due to insufficient domestic demand, for example, highlights this dilemma.<sup>46</sup> The unpredictability of demands could be a major setback for the AU–Africa CDC plan to scale local vaccine manufacturing capacity from 1% to 60% by 2040.

While COVID-19 has shown that going forward, there is a need for greater self-reliance. However, there is still a need for Africa to be embedded within the multilateral pandemic preparedness mechanisms while ensuring that its voice and needs are included in pandemic preparedness funding mechanisms such as the Pandemic Fund.

### THE PANDEMIC FUND—TOWARDS EQUITABLE FINANCING FOR PANDEMICS?

The new Financial Intermediary Fund for pandemic preparedness that was proposed by the Group of Twenty (G20), now housed at the World Bank aims to 'support the development, procurement and deployment of countermeasures and essential medical supplies'.<sup>47</sup> However, there are concerns that the fund may replicate the top-down pattern of global governance that privileges high-income-countries<sup>48</sup> as demonstrated during COVID-19. For example, low-income countries were only allowed a seat on the Pandemic Fund board after strong global criticism.<sup>49</sup>

In addition, there are also concerns that such a fund could also reaffirm the current price monopolies in the pharmaceutical sector without substantial considerations to developing countries' capacities.<sup>24</sup> Relying solely on the Pandemic Fund top-down mechanism to strengthen pharmaceutical capacity in Africa is, therefore, may not result in equitable financing for pandemic preparedness for African countries. As such, there is a need to ensure representation of African countries in the decision-making mechanisms of the Pandemic Fund.

The limitations of top-down pattern of solidarity in global health expose a system in dire need of reform even before the current pandemic.<sup>50 51</sup> As a result, other pandemic financing mechanisms will also need to consider questions of equity. For instance, the white paper

recently released by GAVI, which is a major supplier of childhood vaccines in Africa, outlined the organisation's plans to diversify its supply procurement, with a focus on investing in African manufacturers.<sup>52</sup> While the timeline for such transition is still unclear, these changes in GAVI's business model are a potential step in the right direction towards equity—but will need to ensure that the needs and capacity of African countries are considered.

To ensure equitable pandemic financing, the Pandemic Fund will need to include a holistic, bottom-up approach in its design and implementation, which takes into account country needs, and includes representation of African countries and regional actors. One way to do this is to centre a regional organisation such as Africa CDC in its governance and operations—such as the inclusion of Africa CDC as an implementing partner of the Pandemic Fund.

Hence, in addition to designing the World Bank Pandemic Fund in a sustainable way that takes into consideration local realities, institutions such as the G20 could also provide an arrangement that would give countries more budget flexibility to meet their pandemic preparedness and response plans.<sup>53</sup> African countries should be able to leverage development finance, capital markets and debt restructuring among other tools needed to create the fiscal space for health investment in line with national and regional priorities of building a new public health order in Africa.

However, the ultimate guarantor of Africa's health security lies in increased domestic investment. Many countries in Africa still lack basic health infrastructure required to combat endemic diseases let alone respond to public health emergencies. Without adequate domestic investment in efficient primary healthcare services, delivery and social protection schemes and surveillance and laboratory capacities and workforce, disease outbreaks will continue to exacerbate existing inequalities.<sup>54 55</sup>

## CONCLUSION

The COVID-19 pandemic highlighted some of the systemic challenges and inequities in the global health emergency governance system. Despite this, few would dispute that a stronger framework for health emergencies with WHO at the centre—such as the proposed Pandemic Treaty—is beneficial for global health security. However, the failure of member states to comply with the IHR and other multilateral provisions for COVID-19 has reflected an institutional weakness and has emphasised pervasive issues in the global health system which could potentially be replicated in the next pandemic.

In a multipolar world that is riven by ideological competition, geopolitical tensions and populist nationalism, to succeed, the Pandemic Treaty must be centred on equity. To achieve equity, inclusivity and coherence, and for the Pandemic Treaty to overcome some of the compliance challenges faced by the IHR, there is a need for strengthened and empowered WHO, with the authority,

sustainable financing and accountability to effectively fulfil its mandate—particularly as WHO is the only multi-lateral organisation whose mandate encompasses the systems, finance and governance of health emergency preparedness and response. Additionally, financing mechanisms such as The Pandemic Fund need to ensure inclusion and representation of low-income and middle-income countries in the design, implementation and decision-making bodies.

For Africa, the pandemic has demonstrated a need for strong regional institutions such as Africa CDC in ensuring equity is centred in the Pandemic Treaty and financing mechanisms.

To quote Olusoji Adeyi, author of *Global Health in Practice* and former Director of the Health, Nutrition and Population Global Practice at the World Bank Group, 'what has stood between country populations and absolute disasters is the resilience of their institutions amidst stress'.<sup>56</sup> In this regard, the vision of the AU–Africa CDC, new public health order holds enormous potential and is fundamental to attaining global health security.

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## REFERENCES

- 1 WHO. World health assembly agrees to launch process to develop historic global accord on pandemic prevention, preparedness and response, world health organization. World Health Organization; 2021. Available: <https://www.who.int/news/item/01-12-2021-world-health-assembly-agrees-to-launch-process-to-develop-historic-global-accord-on-panemic-prevention-preparedness-and-response> [Accessed 30 Nov 2022].
- 2 WHO. Conceptual zero draft for the consideration of the intergovernmental negotiating body at its third meeting. 2022. Available: [https://apps.who.int/gb/inb/pdf\\_files/inb3/A\\_INB3\\_3-en.pdf](https://apps.who.int/gb/inb/pdf_files/inb3/A_INB3_3-en.pdf)
- 3 Gostin LO, Habibi R, Meier BM. Has global health law risen to meet the COVID-19 challenge? revisiting the International health regulations to prepare for future threats. *J Law Med Ethics* 2020;48:376–81.
- 4 Nikogosian H, Kickbusch I. The case for an international pandemic treaty. *BMJ* 2021;372:527.
- 5 Duff JH, Liu A, Saavedra J, et al. A global public health convention for the 21st century. *Lancet Public Health* 2021;6:e428–33.
- 6 Labonté R, Wiktorowicz M, Packer C, et al. A pandemic Treaty, revised international health regulations, or both? *Global Health* 2021;17:128. 10.1186/s12992-021-00779-0 Available: <https://doi.org/10.1186/s12992-021-00779-0>
- 7 Ajinam O. The proposed pandemic treaty and the challenge of the south for a robust diplomacy. 2021. Available: <https://www.southcentre.int/wp-content/uploads/2021/05/SouthViews-Ajinam.pdf> [Accessed 22 Dec 2022].
- 8 Velásquez G, Syam N. A new WHO international treaty on pandemic preparedness and response: can it address the needs of the global south? south centre policy brief. 2021. Available: <https://www.southcentre.int/wp-content/uploads/2021/05/PB-93-A-New-WHO-International-Treaty-on-Pandemic-Preparedness-and-Response-REV-2.pdf>
- 9 Fukuda-Parr S, Buss P, Ely Yamin A. Pandemic treaty needs to start with rethinking the paradigm of global health security. *BMJ Glob Health* 2021;6:e006392.
- 10 Davies SE. What contribution can international relations make to the evolving global health agenda? *Int Aff* 2010;86:1167–90.
- 11 Wenham C, Eccleston-Turner M, Voss M. The futility of the pandemic treaty: caught between globalism and statism. *Int Aff* 2022;98:837–52.
- 12 Evaborhene NA. A strong and independent africa CDC would benefit the world. *Lancet* 2022.
- 13 Melimopoulos E. Why hoarding covid vaccines could prolong pandemic, coronavirus pandemic news | al jazeera. 2021. Available: <https://www.aljazeera.com/news/2021/2/19/vaccine-nationalism-why-hoarding-shots-could-prolong> [Accessed 5 Feb 2023].
- 14 Bhutto F. The world's richest countries are hoarding vaccines. this is morally indefensible | fatima bhutto, the guardian news and media. 2021. Available: <https://www.theguardian.com/commentisfree/2021/mar/17/rich-countries-hoarding-vaccines-us-eu-africa>
- 15 Tisdal S. US and russia blocking UN plans for a global ceasefire amid crisis, the guardian news and media. 2020. Available: <https://www.theguardian.com/us-news/2020/apr/19/us-and-russia-blocking-un-plans-for-a-global-ceasefire-amid-crisis> [Accessed 22 Dec 2022].
- 16 Rogers K, Mandavilli A. Trump administration signals formal withdrawal from W.H.O., the new york times. 2020. Available: <https://www.nytimes.com/2020/07/07/us/politics/coronavirus-trump-who.html> [Accessed 22 Dec 2022].
- 17 Fidler D. Here we go again: U.S. policy and health security | think global health council on foreign relations. 2021.
- 18 African. Africa joint continental strategy for COVID-19 OUTBREAK, africa joint continental strategy for COVID-19 OUTBREAK | african union. 2023. Available: <https://au.int/en/documents/20200320/africa-joint-continental-strategy-covid-19-outbreak> [Accessed 22 Dec 2022].
- 19 Deutsch J, Wheaton S. How europe fell behind on vaccines, POLITICO [POLITICO]. 2021. Available: <https://www.politico.eu/article/europe-coronavirus-vaccine-struggle-pfizer-biotech-astrazeneca/> [Accessed 5 Feb 2023].
- 20 EU Special. Document item, ECA; 2022. Available: <https://www.europa.eu/en/Pages/DocItem.aspx?did=61899> [Accessed 7 Feb 2023].
- 21 Nkengasong JN, Tessema SK. Africa needs a new public health order to tackle infectious disease threats. *Cell* 2020;183:296–300.
- 22 Peel M, Findlay S, Mancini DP. India blocks vaccine exports in blow to dozens of nations, subscribe to read | financial times. 2021. Available: <https://www.ft.com/content/5349389c-8313-41e0-9a67-58274e24a019>
- 23 Al Jazeera. Who chief urges rich nations not to undermine COVAX scheme, world health organization news | al jazeera. 2021. Available: <https://www.aljazeera.com/news/2021/2/22/un-to-rich-nations-dont-undermine-covax-vaccine-programme> [Accessed 30 Nov 2022].
- 24 WHO AFRO. Africa faces 470 million COVID-19 vaccine shortfall in 2021, world health organization. World Health Organization. n.d. Available: <https://www.afro.who.int/news/africa-faces-470-million-covid-19-vaccine-shortfall-2021>
- 25 WHO. Covid-19 shows why united action is needed for more robust international health architecture, world health organization. World Health Organization; 2021. Available: <https://www.who.int/news-room/commentaries/detail/op-ed---covid-19-shows-why-united-action-is-needed-for-more-robust-international-health-architecture> [Accessed 22 Dec 2022].
- 26 Vinuales J, Moon S, Le Moli G, et al. A global pandemic treaty should aim for deep prevention. *Lancet* 2021;397:1791–2.
- 27 Vervoort D, Ma X, Sunderji A, et al. The international treaty for pandemic preparedness and response: same story, different times? *Future Virol* 2021.
- 28 Dentico N, Aye B, Meurs M. Financial justice for pandemic prevention, preparedness and response, G2H2. 2022. Available: <https://g2h2.org/posts/financialjustice/> [Accessed 29 Nov 2022].
- 29 Ramakrishnan N. Why india must speak up against the new pandemic treaty proposal at the who, the wire. 2021. Available: <https://thewire.in/health/why-india-must-speak-up-against-the-new-pandemic-treaty-proposal-at-the-who> [Accessed 2 Jan 2023].
- 30 Faviero GF, Stocking BM, Hoffman SJ, et al. An effective pandemic treaty requires accountability. *Lancet Public Health* 2022;7:e730–1.
- 31 Hannon E, Hanbali L, Lehtimäki S, et al. Why we still need a pandemic treaty. *Lancet Glob Health* 2022;10:e1232–3.
- 32 Moon S, Kickbusch I. A pandemic treaty for a fragmented global polity. *Lancet Public Health* 2021;6:e355–6.
- 33 VOA. As monkeypox drops in the west, still no vaccines for africa, VOA. voice of america (VOA news). 2022. Available: <https://www.voanews.com/a/as-monkeypox-drops-in-the-west-still-no-vaccines-for-africa-6747688.html> [Accessed 22 Dec 2022].
- 34 Fidler D. The case against a pandemic treaty: think global health, council on foreign relations. 2021. Available: <https://www.thinkglobalhealth.org/article/case-against-pandemic-treaty> [Accessed 2 Jan 2023].
- 35 Rushton S. Global health security: security for whom? security from what? *Political Studies* 2011;59:779–96.
- 36 Union Africa. Call to action: africa's new public health order, africa CDC. 2022. Available: <https://africacdc.org/news-item/call-to-action-africas-new-public-health-order/> [Accessed 22 Dec 2022].
- 37 Nkengasong J, Djoudalbaye B, Maiyegun O. A new public health order for africa's health security. *Lancet Glob Health* 2017;5:e1064–5.
- 38 CDC AfricaPartnerships for african vaccine manufacturing (PAVM) framework for action, africa CDC. 2021. Available: <https://africacdc.org/download/partnerships-for-african-vaccine-manufacturing-pavm-framework-for-action/> [Accessed 14 Jan 2023].
- 39 African union. Treaty for the establishment of the african medicines agency (AMA) enters into force, treaty for the establishment of the african medicines agency (AMA) enters into force | african union. 2021. Available: <https://au.int/en/pressreleases/20211109/treaty-establishment-african-medicines-agency-ama-enters-force> [Accessed 14 Jan 2023].
- 40 African Development Bank, African Development Bank Group. African development bank's board approves landmark institution: establishment of african pharmaceutical technology foundation to transform africa's pharmaceutical industry, african development bank - building today, a better africa tomorrow. 2022. Available: <https://www.afdb.org/en/news-and-events/press-releases/african-development-banks-board-approves-landmark-institution-establishment-african-pharmaceutical-technology-foundation-transform-africas-pharmaceutical-industry-52727>
- 41 African Union. Agreement establishing the african continental free trade area, agreement establishing the african continental free trade area | african union. 2021. Available: <https://au.int/en/treaties/agreement-establishing-african-continental-free-trade-area> [Accessed 14 Jan 2023].
- 42 Martin M. The commitment to reducing inequality index 2022, oxfam. 2022. Available: <https://www.oxfamamerica.org/explore/research-publications/the-commitment-to-reducing-inequality-index-2022/> [Accessed 1 Dec 2022].
- 43 Inman P. Half of poorest countries have cut health spending despite covid, says oxfam, the guardian [Guardian News and Media]. 2022. Available: <https://www.theguardian.com/inequality/2022/oct/11/half-of-poorest-countries-have-cut-health-spending-despite-covid-says-oxfam> [Accessed 29 Nov 2022].



- 44 Sen AK. Russia's war in ukraine is taking a toll on africa, united states institute of peace. 2022. Available: <https://www.usip.org/publications/2022/06/russias-war-ukraine-taking-toll-africa> [Accessed 30 Nov 2022].
- 45 Federspiel F, Borghi J, Martinez-Alvarez M. Growing debt burden in low- and middle-income countries during COVID-19 may constrain health financing. *Glob Health Action* 2022;15:2072461.
- 46 Adepoju P. Lack of orders could halt covid-19 vaccine production in south africa. 2022. Available: <https://www.devex.com/news/lack-of-orders-could-halt-covid-19-vaccine-production-in-south-africa-103052> [Accessed 30 Nov 2022].
- 47 World. FAQs: financial intermediary fund for pandemic prevention, preparedness and response8, world bank. 2022. Available: <https://www.worldbank.org/en/topic/pandemics/brief/factsheet-financial-intermediary-fund-for-pandemic-prevention-preparedness-and-response> [Accessed 29 Nov 2022].
- 48 WHO COUNCIL. Financing health for all: increase, transform and redirect - the who council on the economics of health for all - council brief no.2, world health organization. *World Health Organization* 2021. Available: <https://www.who.int/publications/m/item/council-brief-no-2>
- 49 Bass E, Russell A. Fix it or forget it: think global health, council on foreign relations. 2022. Available: <https://www.thinkglobalhealth.org/article/fix-it-or-forget-it> [Accessed 3 Jan 2023].
- 50 Abimbola S, Asthana S. Correction: addressing power asymmetries in global health: imperatives in the wake of the covid-19 pandemic. *PLOS Med* 2021;18:e1003667.
- 51 Erondu NA, Aniebo I, Kyobutungi C, *et al*. Open letter to international funders of science and development in africa. *Nat Med* 2021;27:742-4.
- 52 GAVI. Expanding sustainable vaccine manufacturing in africa: priorities for support, gavi, the vaccine alliance. 2022. Available: <https://www.gavi.org/news-resources/knowledge-products/expanding-sustainable-vaccine-manufacturing-africa-priorities-support> [Accessed 14 Jan 2023].
- 53 Mazzucato M. The world is still failing at pandemic preparedness and response: by mariana mazzucato & alan donnelly, project syndicate. 2022. Available: <https://www.project-syndicate.org/commentary/health-investment-failing-at-pandemic-preparedness-response-by-mariana-mazzucato-and-alan-donnelly-2022-11> [Accessed 29 Nov 2022].
- 54 Evaborhene NA. Shifting front lines in west africa: think global health, council on foreign relations. 2020. Available: <https://www.thinkglobalhealth.org/article/shifting-front-lines-west-africa> [Accessed 3 Jan 2023].
- 55 Evaborhene NA. The africa we want: protecting health and livelihood.think global health, council on foreign relations. 2020. Available: <https://www.thinkglobalhealth.org/article/africa-we-want-protecting-health-and-livelihood> [Accessed 5 Feb 2023].
- 56 Adeyi O, Jamison DT. Global health in practice. In: *Global Health In Practice: Investing Amidst Pandemics, Denial Of Evidence, And Neo-dependency (World Scientific Series In Health Investment And Financing)*. 1st ed. New Jersey: World Scientific Series, January 2022.