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Four actions Australia should take to advance equitable global access to COVID-19 vaccines

Deborah Gleeson,[1] Brigitte Tenni,[1,2] Belinda Townsend[3]

1. School of Psychology and Public Health, La Trobe University, Victoria

2. Nossal Institute for Global Health, The University of Melbourne, Victoria

3. Menzies Centre for Health Governance, School of Regulation and Global Governance, Australian National University, Australian Capital Territory

As the COVID-19 pandemic progresses, inequities in access to COVID-19 vaccines have become increasingly stark. By the end of March 2022, two years after the World Health Organization (WHO) declared the coronavirus outbreak a pandemic, 11.2 billion COVID-19 vaccine doses had been administered globally and 64.3% of the global population had received at least one dose, but only 14.5% of people in low-income countries (LICs) had received a dose.[1] According to the WHO's Director-General, by February 2022, 116 countries were still not on track to meet the WHO's target of vaccinating 70% of the population of each country by mid-2022.[2]

COVAX, the global program for equitable distribution of COVID-19 vaccines, has failed to realise its promise. It began with the modest goal to vaccinate 20% of the global population (enough for only health workers and the most vulnerable groups) and to deliver at least 2 billion doses by the end of 2021. But COVAX delivered fewer than half of this number in 2021,[3] and by the end of March 2022 had yet to reach 1.4 billion doses.[4]

If these inequities are not quickly reversed, the WHO's goal of reaching 70% population coverage in every country by mid-2022[5] will be unachievable, with at least 19 LICs unable to reach 70% coverage before 2030.[6] This delay would result in an avoidable burden of severe illness and premature death denounced by the WHO's Director-General as a "catastrophic moral failure".[7] Moreover, failure to control transmission globally raises the risk of variants emerging that are less responsive to vaccines, compromising the world's recovery from the pandemic.[8]

Rich countries, including Australia, bear most of the responsibility for inequities in global access to COVID-19 vaccines. Correcting these inequities will require a commitment to address the drivers of inequity and concerted action to right the current imbalance.

The drivers of global inequity in access to COVID-19 vaccines

Drivers of inequitable access include vaccine nationalism, failure to share the exclusive rights to the means of production, and the reluctance of governments to intervene and correct for market failure.

The preconditions for these inequities were set early in the pandemic, as rich countries quickly monopolised the global supply of vaccines even before they were manufactured. By November 2020, countries accounting for only 14% of the global population had pre-purchased 51% of the first 7.5 billion vaccine doses.[9] Despite its slow domestic rollout, Australia joined other countries in entering pre-purchase agreements for excessive quantities of vaccines, and by August 2021 had secured agreements for 280 million doses[10] – enough to vaccinate its population more than five times over.

There is no sign that vaccine nationalism is abating as high-income countries (HICs) achieve high vaccination rates. The WHO's call for a moratorium on booster shots until 2022,[11] to allow redistribution of doses to LICs, was ignored by many HICs, including Australia. By the end of 2021, more boosters had been administered in HICs than the total doses given in LICs.[12]

Wealthy governments have pledged to donate over a billion vaccine doses, falling well short of the 7 billion doses needed by LICs and lower-middle-income countries to achieve global vaccination by the end of 2022.[6] Delivery of these promised doses has been slow and often ill-timed, with many arriving within three months of expiry.[3] And although useful in the short term, donations can entrench a charity model that perpetuates inequities and fails to address their root causes.

Monopolies on the means of production have limited the global supply, with a handful of companies holding exclusive rights to manufacture COVID-19 vaccines and largely refusing to share. No COVID-19 vaccine manufacturer has yet agreed to contribute its intellectual property (IP), know-how and technology to the WHO COVID-19 Technology Access Pool set up almost two years ago,[13] or the WHO-backed mRNA technology-transfer hub established in South Africa.[14] Most COVID-19 vaccine manufacturers (with the notable exception of AstraZeneca) have even avoided sharing their IP and technology by entering into voluntary licensing arrangements with companies in low- and middle-income countries (LMICs).[15]

Negotiations for a temporary waiver of monopoly rights governed by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) for COVID-19 health products and technologies, first proposed by India and South Africa in October 2020, remain deadlocked after almost 18 months. Now co-sponsored by 63 of the World Trade Organization's (WTO) 164 members and supported by more than 100, the so-called TRIPS Waiver proposal[16] would suspend patents and other monopoly rights and allow companies around the world to freely produce COVID-19 health products, including vaccines, and use technologies (such as mRNA platforms) without fear of litigation over infringing IP rights. Unlike existing flexibilities available under TRIPS, the TRIPS waiver would apply not only to patents but also to trade secrets protection, which covers

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the detailed information and technology required for vaccine manufacturing. The TRIPS Waiver continues to face opposition from the EU, Switzerland and the UK.[17] While Australia announced its support for the TRIPS Waiver in September 2021,[18] it has not become a formal co-sponsor.

In March 2022, four WTO members drafted a compromise 'solution' to try to break the impasse.[19] However, the compromise was limited to vaccines (excluding treatments and tests), excluded many developing countries and was criticised for being too procedurally onerous.[20] At the time of writing, Australia's position on the compromise is not clear.

Governments of countries where COVID-19 manufacturers are headquartered have also so far failed to force the industry to share the 'recipes' and technology for making vaccines, despite the huge investment of public funding in their development. Médecins Sans Frontières reported in November 2020 that "the six front running vaccine candidates have had a total of over US$12 billion of taxpayer and public money poured into them".[21] Each received between $455 million and $2.1 billion in funding, largely from the US Government and the Coalition for Epidemic Preparedness Innovations.[22] Australia has invested $350 million in public money into vaccine research and development (R&D).[10] Yet vaccine manufacturers are set to profit handsomely: Pfizer, for example, is expecting revenues of US$32 billion from its COVID-19 vaccines in 2022.[23]

What role for Australia in advancing equitable access?

We argue that there are four actions Australia should take to advance equitable global access to COVID-19 vaccines: produce, donate, redistribute and fund more COVID-19 vaccines for LICs; support a broad and workable TRIPS Waiver; invest in building production capacity in LMICs; and impose conditions on public funding for R&D for COVID-19 health products and technologies to ensure know-how is shared and pricing is fair.

By October 2021, Australia had made the following commitments to fund and supply COVID-19 vaccines to countries in need:[6,10]

- $130 million to COVAX for LICs over 2020–2030;
- $523 million over 2020–2023 for a regional Vaccine Access and Health Security Initiative, a program to support access to vaccines for countries in the Indo-Pacific (120,000 vaccine doses a week plus rollout support);
- $100 million for the Quad vaccine partnership (involving the US, Australia, India and Japan) over 2020;
- up to 20 million Australian doses for the Asia-Pacific by the end of 2022; and
- an extra 40 million doses pledged for the Indo-Pacific (by the end of 2022).

Further commitments of $85 million and 10 million doses to COVAX, and an additional $375 million for the Health Security Initiative were made in the Federal Budget in April 2022. While Australia's contributions will certainly help countries in the region, Australia could do much more. End COVID For All, a coalition of Australian health and humanitarian organisations, argues that to contribute its fair share, Australia should commit an additional $250 million to COVAX and share an additional 20 million doses.[6] Furthermore, Australia should contribute doses through COVAX rather than directly to countries in the region to ensure they are distributed equitably: most LICs in greatest need are located in other parts of the world.[6] Australia should also commit to stopping the hoarding of vaccine doses and allow doses it has ordered that are not immediately needed in-country to be reallocated.

While CSL will continue to produce the AstraZeneca vaccine until its contract to supply 50 million doses is filled, with doses not needed in Australia to be donated to neighbouring countries, there has been no commitment from CSL or the Australian Government to continue production after these doses have been delivered.[24] The Government should negotiate with AstraZeneca and CSL to enable Australia to continue to produce vaccines for the region.

Sharing and redistributing existing doses will not go far enough to correct inequities in access to COVID-19 vaccines; the production of vaccines in LMICs must be increased. The TRIPS Waiver (in the form endorsed by 63 countries in May 2021) is critical to efforts to scale up manufacturing. Refusing to water down the Waiver proposal, and encouraging other countries to do the same, is an important contribution Australia can make.

The COVID-19 pandemic has highlighted the importance of building local production capacity in LMICs to meet the demand for vaccines and to ensure supply is equitable for current and future pandemics. This will require significant investment and a commitment to sharing vaccine recipes and technological know-how. Countries such as Indonesia and Bangladesh have the potential to manufacture millions of doses per annum if the technology and know-how were shared.[25] Australia could help build production capacity in the Asia-Pacific by supporting the development of a biomanufacturing hub to be established by the WHO in South Korea.[26]

Finally, the Australian Government should make open licensing and fair pricing a condition of funding for R&D for COVID-19 health products and technologies. In September 2020, Prime Minister Scott Morrison declared to the UN General Assembly, "Australia's pledge is clear: if we find the vaccine, we will share it".[27] While Australia did not proceed to 'find the vaccine' in the way Morrison hoped, continued R&D will be necessary to produce second- and third-generation vaccines and therapeutics. Unless governments seize the opportunity to make public funding conditional on sharing the means of production with the rest of the world, the current imbalance will continue.

Australia's record has been mixed so far. While it has contributed some funds and vaccine doses to neighbouring countries, much more needs to be done. Australia has joined other HICs in jostling to get to the front of the queue, contributing to COVAX's slow vaccine procurement and distribution. While Australia has declared support for the TRIPS Waiver, it needs to follow through by insisting on a workable Waiver that covers all needed COVID-19 products and all relevant IP rights and that can be used by all countries that need it. The Australian Government should also introduce a standard condition in future funding contracts that products and technologies must be shared. Australia can, and should, take a much stronger leadership role in bringing the global pandemic under control.

References

1. Our World in Data. *Coronavirus (COVID-19) Vaccinations* [Internet]. Oxford (UK): Global Change Data Lab; 2022 [cited 2022 Mar 29]. Available from: https://ourworldindata.org/covid-vaccinations
2. World Health Organization. *WHO Director-General's Remarks at the COVID-19 Global Action Meeting – 14 February 2022*. Geneva (CHE): WHO; 2022
3. de Bengy Puyvallée A, Storeng KT. COVAX, vaccine donations and the politics of global vaccine inequity. *Global Health*. 2022;18:26.
4. United Nations International Children's Emergency Fund. *COVID-19 Vaccine Market Dashboard 2021* [Internet]. New York (NY): UNICEF; 2021 [cited 2022 Mar 29] Available from: https://www.unicef.org/supply/covid-19-vaccine-market-dashboard

© 2022 The Authors

5. World Health Organization. *Strategy to Achieve Global COVID-19 Vaccination by Mid-2022* [Internet]. Geneva (CHE): WHO; 2021 [cited 2021 Oct 21]. Available from: https://cdn.who.int/media/docs/default-source/immunization/covid-19/strategy-to-achieve-global-covid-19-vaccination-by-mid-2022.pdf?sfvrsn=5a68433c_5
6. End COVID For All. *Shot of Hope: Australia's Role in Vaccinating the World Against COVID-19* [Internet]. Sydney (AUST): Micah Australia; 2021 [cited 2021 Oct 21]. Available from: https://uploads-ssl.webflow.com/61541fd90a3828f6fda4ffa2/6162af959514769d5caa48e6_A%20SHOT%20OF%20HOPE%20-%20Australia%E2%80%99s%20role%20in%20vaccinating%20the%20world%20against%20COVID-19.pdf
7. World Health Organization. *WHO Director-General's Opening Remarks at 148th Session of the Executive Board* [Internet]. Geneva (CHE): WHO; 2021 [cited 2021 Oct 15] Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-148th-session-of-the-executive-board
8. Ye Y, Zhang Q, Wei, X et al. Equitable access to COVID-19 vaccines makes a life-saving difference to all countries. *Nat Hum Behav*. 2022;6**:**207–16.
9. So AD, Woo J. Reserving coronavirus disease 2019 vaccines for global access: Cross sectional analysis. *BMJ*. 2020;371:m4750.
10. Australian Government Department of Health. *Australia's Vaccine Agreements 2021* [Internet]. Canberra (AUST): Government of Australia; 2021 [cited 2021 Oct 15]. Available from: https://www.health.gov.au/initiatives-and-programs/covid-19-vaccines/about-rollout/vaccine-agreements
11. Cullinan K. WHO Appeals to Postpone COVID-19 Vaccine Boosters Until 2022; Tedros Lashes out at Pharma Association. *Health Policy Watch* [Internet]. 2021 Aug 09 [cited 2021 Oct 15]. Available from: https://healthpolicy-watch.news/who-appeals-for-no-covid-19-vaccine-boosters-until-2022/
12. Mancini DP, Stabe M. Covid boosters in rich countries outnumber all jabs among poor nations. *Financial Times* [Internet]. 2021 Dec 19 [cited 2022 Mar 24]. Available from: https://www.ft.com/content/5144cd19-2c67-46d0-a37d-a869006bfbdb
13. World Health Organization. *COVID-19 Technology Access Pool* [Internet]. Geneva (CHE): WHO; 2020 [cited 2021 Oct 15]. Available from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov/covid-19-technology-access-pool
14. Davies M. Covid-19: WHO efforts to bring vaccine manufacturing to Africa are undermined by the drug industry, documents show. *BMJ*. 2022;376:o304.
15. Médecins Sans Frontières. *Sharing mRNA Vaccine Technologies to Save Lives* [Internet]. Geneva (CHE): MSF; 2021 [cited 2021 Oct 21]. Available from: https://msfaccess.org/sharing-mrna-vaccine-technologies-save-lives
16. World Trade Organization. *Waiver from Certain Provisions of the TRIPS Agreement for the Prevention, Containment and Treatment of COVID-19: Revised Decision Text*. IP/C/W/669/Rev.1. Geneva (CHE): WHO; 2021.
17. Third World Network. *EU, Switzerland, UK Continue Opposition, Amid Support for TRIPS Waiver* [Internet]. Penang (MYS): TWN; 2021 [cited 2021 Oct 21] Available from: https://www.twn.my/title2/health.info/2021/hi210906.htm
18. Karp P, Visontay E. Australia to support vaccine waiver after months of pressure from human rights groups. *The Guardian, Australia Edition* [Internet]. 2021 Sep 8;18:45 [cited 2021 Oct 15]. Available from: https://www.theguardian.com/society/2021/sep/08/australia-to-support-vaccine-waiver-after-months-of-pressure-from-human-rights-groups
19 Silverman E. A compromise is reached on an intellectual property waiver for Covid-19 vaccines, but does it go far enough? *Stat* [Internet]. 2022 Mar 15 [cited 2022 Mar 24]. Available from: https://www.statnews.com/pharmalot/2022/03/15/covid19-vaccine-patents-wto/
20. Kelsey J. Why a leaked WTO 'solution' for a COVID patent waiver is unworkable and won't make enough difference for developing countries. *The Conversation* [Internet]. 2022 Mar [cited 2022 Mar 24]. Available from: https://theconversation.com/why-a-leaked-wto-solution-for-a-covid-patent-waiver-is-unworkable-and-wont-make-enough-difference-for-developing-countries-179642
21. Médecins Sans Frontières. *Governments Must Demand Pharma Make All COVID-19 Vaccine Deals Public* [Internet]. Geneva (CHE): MSF; 2020 [cited 2021 Oct 15]. Available from: https://www.msf.org/governments-must-demand-all-coronavirus-covid-19-vaccine-deals-are-made-public
22. Wouters OJ, Shadlen KC, Salcher-Konrad M, Pollard AJ, Larson HJ, Teerawattananon Y, et al. Challenges in ensuring global access to COVID-19 vaccines: production, affordability, allocation, and deployment. *Lancet*. 2020;397(10278):1023-34.
23. Kimball S. Pfizer expects $54 billion in 2022 sales on Covid vaccine and treatment pill. *CNBC* [Internet]. 2022 Feb 8 [cited 2022 Mar 24]. Available from: https://www.cnbc.com/2022/02/08/covid-pfizer-pfe-earnings-q4-2021.html
24. Dziedzic S, Fox L. Australia plans to stop AstraZeneca vaccine production — but how will it affect our neighbours? *ABC News* [Internet]. 2021 Oct 14 [cited 2021 Oct 15]. Available from: https://www.abc.net.au/news/2021-10-14/opposition-aid-groups-urge-government-extend-csl-astra-zeneca/100539494
25. Cullinan K. Indonesia and Bangladesh reveal massive untapped vaccine production capacity at C-TAP Anniversary. *Health Policy Watch* [Internet]. 2021 May 28 [cited 2021 Oct 20]. Available from: https://healthpolicy-watch.news/indonesia-and-bangladesh-reveal-massive-untapped-vaccine-production-capacity-at-c-tap-anniversary/
26. World Health Organization. *Moving Forward on Goal to Boost Local Pharmaceutical Production, WHO Establishes Global Biomanufacturing Training Hub in Republic of Korea* [Internet]. Geneva (CHE): WHO; 2022 Feb 23 [cited 2022 Mar 24]. Available from: https://www.who.int/news/item/23-02-2022-moving-forward-on-goal-to-boost-local-pharmaceutical-production-who-establishes-global-biomanufacturing-training-hub-in-republic-of-korea
27. Prime Minister of Australia. *Our Common Hope, UN General Assembly National Statement* [Internet]. Canberra (AUST): Government of Australia; 2020 Sep 26 [cited 2021 Oct 15]. Available from: https://www.pm.gov.au/media/our-common-hope-un-general-assembly-national-statement

Correspondence to: Deborah Gleeson, School of Psychology and Public Health, La Trobe University VIC 3068; e-mail: d.gleeson@latrobe.edu.au

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