

GLOBAL ACCESS TO MEDICINES AND THE LEGACIES OF COLONIALITY IN COVID-19 VACCINE INEQUITY

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Abstract: This article, written by two members of the advocacy organisation Access to Medicines Ireland, analyses current discourses and practices around global COVID-19 vaccine distribution. As vast imbalances in vaccination coverage continue to characterise global vaccine distribution, we argue that some of the public discourses and distribution mechanisms are coloured by a colonial legacy, which substitutes local capacity building in low and middle-income countries with donations, and substitutes a transparent public debate around how to tackle these inequalities with a discourse that explains them away through perpetuating such tropes as ‘vaccine hesitancy’ or ‘wastage’. Even though such claims have been continually refuted by scientific evidence, the pharmaceutical industry and many high-income country governments keep reiterating them. By dismantling such myths, we point to the legacies from which they have emerged. Flagging the possibility of alternative discourses and practices in global health, we trace the recent history of the access to medicines movement. We argue for a need to suspend intellectual property rights rules around COVID-19 health technologies through the so-called Trade-Related Aspects of Intellectual Property Rights (TRIPS) waiver, citing positive exemplars of vaccines developed through an open science paradigm as a counterpoint to the pharmaceutical industry’s claims that such a waiver would have chilling effects on the global pharmaceutical innovation system. We close by highlighting development education opportunities around global access to medicines and universal healthcare.

Key words: Access to Medicines; Global Health; Coloniality; COVID-19.

Why we need to talk about access to medicines

“Stockpiling by the rich, of course, leaves poor countries in Africa, Asia, and Latin America much more vulnerable. ... Serious questions of global social justice arise when wealth, rather than need, becomes

the primary allocation criterion. The maldistribution of vaccines in the face of a global health crisis will only widen the already large health gap between rich and poor” (Gostin, 2009: 10).

The COVID-19 pandemic has exposed the fragilities and fault lines of the global capitalist system in many different ways including: supply chain insecurity; exacerbation of wealth inequality across and within countries; lack of global democratic oversight; excessive global economic dependencies; and national health systems’ weaknesses. While each of these issues merit separate critical analysis, this article focuses on one topic that was tragically spotlighted through the pandemic crisis: the vast inequalities in access to medicines between high-income and low-to-middle income countries (HICs and LMICs, respectively). At the time of writing this article (January 2022), over 60 per cent of the world’s population have received at least one dose of COVID-19 vaccination, but this figure drops to just under 10 per cent for low-income countries (Ritchie et al., 2022). According to the global vaccine tracker, HICs have now administered over 179 vaccination doses per 100 capita of population, that is over 13 times the number of doses administered in low-income countries, standing at 13.5 per 100 capita (Ibid). At the same time, activists have warned that treatments against COVID-19 such as the newly authorised antiviral Paxlovid, may not reach those same countries where they are most urgently needed; they have urged pharmaceutical manufacturers such as Pfizer to reserve parts of their production capacity specifically for LMICs (Erman, 2022). Similar calls have also been made for test kits, which are virtually non-existent in many low-income countries (Robinson, 2022). Yet, as our opening quote suggests, written not during the COVID-19 pandemic but rather during the H1N1 pandemic of 2009, these distributional inequalities are not simply a feature of a rapidly evolving situation that has left the global community with little pause to reflect. They are the direct and continuing consequences of a centuries-long absence of concern for global social and health justice by leaders in rich nations for populations in poorer ones.

In this article, we analyse prevalent discourses that explain - or, as we would argue, explain away - these vast disparities through arguments such as vaccine hesitancy, health system unpreparedness, or wastage. We do not seek to dismantle these arguments on scientific grounds, which has emphatically been done before; rather, we wish to connect these discourses to a broader

colonially coloured undertone in discourses relating to global health, which we detect in media outlets and politicians' utterances in many HICs. We argue that this lingering colonial mindset is highly counterproductive to the goal of health as a human right and to a swift post-pandemic economic recovery. In fact, if the appearance of the Omicron variant is anything to go by, inequity in vaccination, testing, and treatment is economically damaging to HICs due to the containment measures required, not to mention the devastating loss of lives and livelihoods in LMICs. Any unnecessary prolonging of the pandemic will also increase the pandemic's anticipated 'long hangover', which again is likely to disproportionately affect LMICs (Jordà, Singh, and Taylor, 2020). We point out the many opportunities for development education and argue for medical and business curricula at third-level institutions to include an analysis of the colonial legacies in current economic systems.

We write this article from our perspectives as a global health professional and medical doctor and an academic at the intersection of healthcare, economic sociology, and business. But we also write it as activists and members of Access to Medicines Ireland (AMI), a Comhlamh membership organisation. AMI was formed in 2015 to join the global campaign for equitable access to affordable and effective medicines. Since then we have consistently advocated for a system of medical research and development that would deliver the medicines we need at a fair price and with equitable distribution, in Ireland and everywhere else in the world. AMI is part of a much larger network of European and global not-for-profit organisations that closely monitor and fight against inequalities created by the global pharmaceutical industry.

The colonial legacies in access to medicines

Over the years, as advocates for access to medicines (A2M) issues, we have been witnesses to the pharmaceutical industry and wealthy nations undermining fair access policies and proposals. Before the COVID-19 pandemic this was most starkly highlighted during the HIV/AIDS epidemic when emerging treatments remained out of reach of most patients in LMICs due to high treatment prices, causing millions of unnecessary deaths and a treatment gap of approximately ten years between HICs and LMICs. This is also visible in a global funding system that either underfunds issues or disease

areas considered to have ‘no viable market’ within HICs (‘tHoen et al., 2011) or that, if such disease areas are tackled, tends to embrace a Western ‘solutionist’ attitude to these problems. Much-needed malaria research, for instance, is predominantly funded by multinational foundations (chiefly the Gates Foundation), which promote pharmaceutical and technological innovations that are often designed by researchers from the Northern hemisphere. Yet, African scientists have argued that longer-term investments in economic development and poverty alleviation would be a much better route to malaria eradication than a focus on short-term technofixes (Majambere, 2021). Thus, the current imbalance in access to COVID-19 vaccines and treatments is by no means a new phenomenon. On the contrary, as we will argue below, it is the outcome and continuation of colonial thinking that prevails in the pharmaceutical sector and in some sections of the global health community up to this day (see Fofana, 2021 for an expanded examination of this issue).

Many elements of the current pharmaceutical system influencing global access to medicines were cemented into place by the so-called Trade-Related Aspects of Intellectual Property (TRIPS) agreement, which was ratified by the members of the World Trade Organisation in 1994 and came into effect in 1995 (WTO, n.d.). This agreement, for the first time in global history, enforced a binding uniform system of intellectual property rights (IPRs) or patents on its members. For many countries especially in the global South, this agreement meant that they had to begin offering patents on medicines, as many had previously excluded patents on pharmaceutical products and processes from their local patent rules (‘tHoen et al., 2011). In countries such as India, TRIPS had a devastating effect on a thriving generics industry, which had heretofore often reverse-engineered pharmaceuticals from HICs and turned India into the ‘pharmacy of the developing world’ (Bazzle, 2010).

Even though the least developed countries were given a transition period of up to 20 years before they had to enforce the TRIPS agreement, the early effects of this global levelling of the intellectual property regime for pharmaceuticals became all too apparent during the global HIV/AIDS crisis, where costs of US\$10,000 per patient per treatment for originator (that is, branded) drugs kept these firmly out of reach of most patients in the global

South. This situation only changed gradually after the adoption of the 2002 Doha Declaration, which provided for so-called TRIPS Flexibilities and the potential for compulsory licensing in cases where governments see an urgent national need to grant access to patents for generic manufacturers (Correa, 2002). However, these flexibilities remain marginal to the global patent regime that TRIPS has established: they are only enforceable by local governments and not globally, and they need to be evoked for one treatment at a time, which makes for an onerous legal and regulatory system that has only been invoked in exceptional cases.

And then COVID-19 happened...

Far from being an esoteric legal instrument of little concern to the development community, TRIPS and its consequences came into full spotlight again when the imbalance in the global distribution of COVID-19 vaccinations and treatments became apparent over the past twelve months. During the most fervent vaccination period in 2021, vaccine manufacturers simply could not keep up with demand. Many HICs and the European Union (EU) had secured vaccinations for their populations through so-called Advanced Purchase Commitments even before vaccines had been developed and tested. In fact, they had pre-ordered so many vaccines that they could vaccinate their populations several times over in some cases. Once vaccinations came on the market, the manufacturers' limited distribution capabilities and their unwillingness to partner with contract manufacturers in LMICs meant that after these manufacturers had delivered on the Advanced Purchase contracts in place with HICs, little to no supply was left to distribute to the rest of the world. While the World Health Organisation's (WHO) COVID-19 Vaccines Global Access (COVAX) instrument had been specifically designed to support equal access to vaccines for all countries, for months COVAX was effectively unable to procure enough vaccines to fulfil this ambition, with reports soon declaring COVAX 'a failure' (Furieux, Goldhill and Davies, 2021). To be fair, at the time of writing, the facility has managed to deliver one billion vaccines, though it continues to be plagued with financial difficulties, including a US\$5.2 billion funding shortage and lack of funds to distribute vaccine doses that were donated without accessories such as syringes (Mancini, 2022).

Seeing the writing on the wall, the countries that would be affected by the emergent vaccine inequity proposed two initiatives that would prevent such inequities from arising in the first place: the C-TAP, proposed by Costa-Rica in April 2020 at the same time as the COVAX instrument was agreed upon, and the TRIPS waiver, which was proposed by South Africa and India in October 2020 to promote vaccine access in the global South. As we have explained these instruments and their overlaps and differences in more detail elsewhere (Geiger and McMahon, 2021), it is sufficient to note here that the C-TAP represents a voluntary multilateral sharing mechanism for COVID-19 vaccines, treatments, and any know-how necessary to manufacture these. Through the C-TAP, manufacturing capacity could have thus been easily expanded to qualified partners while leaving the patent system intact. Unfortunately, this attempt at voluntary multilateral intellectual property (IP) sharing failed: as per January 2022, the C-TAP remains essentially empty, as manufacturers have chosen not to engage with this instrument and instead entertain their own bilateral (and typically secret) partnering agreements with a handful of contract manufacturers. The TRIPS waiver proposed to the WTO, on the other hand, would enable a global moratorium on patents on COVID-19 health technologies for the duration of the pandemic. The waiver would relieve individual countries of the onerous system of enforcing TRIPS flexibilities, for instance through compulsory licensing, for each and every single treatment or vaccination (though the TRIPS waiver would still have to be translated into national legislation). However, despite a surprise endorsement by the US of the waiver in May 2021, the EU, Switzerland and Norway have continued to block the waiver proposal at the WTO. Not coincidentally, these countries / blocs were also among those accused of vaccine nationalism when diverting vaccine supplies to their own populations first (Fidler, 2020).

‘Hesitancy’ and ‘wastage’: The revival of colonialist discourses in the midst of COVID-19

When pushed on the issue of vaccine inequity, many HIC government leaders and pharmaceutical executives either lean on the existence of COVAX - as for instance Leo Varadkar during a parliamentary debate in the Irish parliament in late 2021 (Oireachtas.ie, 2022) - or they conjure up the spectre of vaccine

hesitancy in LMICs. According to this discourse, countries affected by low vaccination rates are themselves to blame because of higher-than-average vaccine hesitancy in those populations. In fact, the African region has been shown to have similar rates of vaccine hesitancy as the rest of the world, and less than the US or Russia, for instance (Solis Arce et al., 2021). It is especially hypocritical of the pharmaceutical industry to blame vaccine inequity on hesitancy. While vaccine hesitancy is an important global issue, mistrust in pharmaceutical companies in many LMICs has been driven by the historically unethical conduct of the industry in clinical trials conducted in these countries (Fofana, 2021). Though not higher than in many HICs, vaccine hesitancy has also not been helped by irregular supplies through COVAX and the fact that those supplies have often consisted of the donated surplus vaccines from HICs, leaving countries with no choice as to which vaccines eventually arrive in their countries and when.

This supply issue has given rise to a second dominant discourse, that of vaccine wastage. Media reports have circulated widely according to which vaccines were donated to LMICs but once there, ‘wasted’ by a lack of use before expiration. The reality of these reports of vaccine wastage is often tightly related to the two issues mentioned above: supply irregularities and surplus donations. In terms of supply, health systems may indeed not be able to cope with unexpected or highly irregular supplies as local distribution systems on the ground are not able to anticipate such deliveries. In terms of donations, it appears that donated vaccine supplies were often too close to their expiry date to be safely distributed and used on the ground (McAllister, George and Nebehay, 2021). Yet, all too often, the voices that shouted loud about vaccine hesitancy and wastage were quiet about the underlying reasons for non-use of vaccines.

Donations, travel bans and vaccine diplomacy: practices of coloniality?

The issue of donations leads into a broader issue: the fact that beyond colonialist discourses, many of the *practices* through which the pandemic is managed globally are (neo)colonialist in nature too. While campaigns such as UNICEF’s ‘get one, give one’ for vaccine donations are laudable to alleviate short-term bottlenecks, the old saying of ‘give someone a fish, and you feed

them for a day; teach them to fish, and you feed them for a lifetime’ is as valid for vaccines and treatments as it is for many other development issues. While the EU, for instance, is acutely aware of the importance of regional vaccine manufacturing capabilities and is building this issue centrally into its new Pharmaceutical Strategy (European Commission, 2020), it simultaneously prevents the African continent from rolling out such capacity by favouring a donation-based rather than a capacity-building vaccine supply model. Both the C-TAP and the TRIPS waiver would likely lead to boosting regional capabilities, for instance in mRNA technology, which is seen as a promising future technology to manufacture vaccines and treatments that use a copy of a molecule called messenger RNA to produce an immune response (Peacocke et al., 2021). It is important to note again that the lack of domestic manufacturing capacity and its potential consequences in a pandemic were identified long before COVID-19 hit the world (Sparke and Anguelov, 2012).

A donation-based handling of the global equity issue also leaves the door wide open for vaccine diplomacy, or to put it more bluntly, neo-colonial ‘balance of power’ politics (Fidler, 2020). Such politics have also been followed through COVID-19 health technologies. For instance, as Zhou (2021) reports, China vowed as early as May 2020 that their COVID-19 vaccine would be a ‘global public good’, and it managed to align a number of countries in its COVID-19 vaccine cooperation. However, while it may alleviate vaccine bottlenecks in the short term, such vaccine diplomacy in the longer term works squarely against the interest of LMICs, further weakening the authority held by transnational institutions such as the WHO, and ultimately hindering any effort to establish a truly global approach to health. As Zhou (2021: 6) concludes:

“making COVID-19 a zero-sum geopolitical power game, with winners and losers, will heighten tensions between the immunized and the nonimmunized, between inequality and security, and between globalism and nationalism, eventually resulting in ‘a race to the bottom’ where there can be no true winner”.

While some may argue that it is the end result that counts and that the world should worry about such longer-term issues once the pandemic is under control, donation-based models coupled with neo-colonial geopolitics have clear and catastrophic short-term consequences for HICs too; in the oft-repeated words of Dr. Mike Ryan, executive director of the WHO's Health Emergencies Programme, the pandemic isn't over until it's over for everyone (*Irish Examiner*, 2020). The patchy system of donations and the associated low levels of vaccination in LMICs have left ample room for the Coronavirus to mutate, as became clear in December 2021 when the Omicron variant was detected by South African scientists. While it was only detected in South Africa courtesy of a highly developed testing system and had likely already spread in other parts of the world too, the global community, or at least its high-income part, reacted with a protectionist mind-set. Most High-Income Countries singled out Southern African countries and 'punished' them with a travel ban for a variant that was only made possible through the delays caused in vaccinations due to lack of supply. These attempts to create what have been called 'the corporeal equivalents of gated communities' (quoted in Sparke and Anguelov, 2012) speaks loudly to the global solidarity the COVID-19 pandemic has failed to foster. It is highly likely that further variants, and possibly deadlier ones than Omicron, will appear as long as LMICs have not been given a fair chance to catch up on vaccinations. The daily loss of life and the associated short- and long-term economic consequences of this tragedy are devastating and predominantly hitting those countries that can least absorb such shocks.

Decolonising vaccine distribution: alternative routes to access and to building capacity

This tragedy is avoidable. A2M campaigners have been joined by scientists and citizens all over the world in their calls for an immediate adoption of the TRIPS waiver, though it is likely that any implementation of such a waiver would now come too late to save lives during the current crisis. The pandemic treaty, currently prepared in the WHO for negotiations in 2023 and 2024, may pre-empt a similar situation of inequity from happening in the next pandemic. However, alternative models of building capacity are already in place or on the cusp of being operational, which can act as important blueprints for

‘decolonised’ vaccine and treatment manufacturing. We briefly wish to introduce two: the Texas Children’s / Baylor College Corbevax vaccine and the Cuban vaccine development programme.

Corbevax was developed by a team led by Drs Maria Elena Bottazzi and Peter Hotez at Texas Children’s Hospital and Baylor College of Medicine based on a ‘traditional’ protein-based technology that would allow for economies of scale and rapid large-scale manufacturing, two features missing from the mRNA vaccine innovations that many states had preferred to subsidise ahead of much better-known paths to COVID-19 vaccines. Crucially, because Corbevax can be stored and transported in regular refrigerators, logistics are also much easier than with some of the ‘big’ vaccines. As its inventors and other immunologists have noted, it is clear that Corbevax was developed with global vaccine access in mind (Corless, 2022), rather than with a view to developing future pharmaceutical markets, as was likely the case with the mRNA vaccines. After two Phase III clinical trials involving more than 3,000 subjects, the vaccine was found to be safe, well-tolerated, and immunogenic (or able to produce an adequate immune response). It was subsequently given emergency use authorisation by the Indian Center for Disease Control on 28 December 2021, and it has been heralded as ‘The World’s COVID-19 Vaccine’ (Texas Children’s Hospital, 2021). Corbevax is shared free from patent protection with the goal of creating an alternative to expensive and tightly-guarded mRNA vaccines. The developers of Corbevax are in talks with multiple manufacturers around the world and with the World Health Organisation to see how they can share the know-how and technology widely; in a first instance, they transferred their technology to an Indian manufacturer that aims to produce one billion doses of the vaccine in 2022.

Unique in Latin America, Cuba has developed its own home-grown vaccines for its eleven million population, using a similar approach as the Texas Children’s team by aiming at low cost, easy to distribute, and scalable vaccines, which makes these vaccines particularly suitable for LMICs. And just as the team in Texas, the Cuban vaccines too could be transferred to qualified manufacturers for free or at a low cost. While the Cuban vaccines remain to be authorised outside Cuba, the fact that vaccines could be developed and manufactured in this country demonstrates the importance of building and

nurturing domestic health technology capabilities including ecosystems of suppliers and manufacturers. We revert to our opening quote: it was clear thirteen years ago - and likely for much longer - that current vaccine capacity, concentrated in HICs, would not be sufficient to vaccinate the world in a pandemic where this would become necessary. Little has been done in the intervening years to change this situation, and the consequences of this inaction are now felt across the globe with new variants emerging, but felt particularly hard in LMICs. Arguments that try to explain away inequalities in vaccine rates through ‘hesitancy’ or ‘health system failures’ are not only a throwback to a colonialist mind-set that a true global health (or rather, One Health) approach should have long since abandoned. They are also hugely dangerous in justifying continued inertia by leaders in HICs to change the current system of public subsidies for vaccines that predominantly serve the rich.

Educational implications

We have written this article not as development education professionals but as academics and activists. Nonetheless, we conclude by pointing out potential implications of our argument for higher and tertiary education in development studies and beyond. Most importantly, while it is human nature to be turned to the present particularly in times of crisis, there is a significant body of research across healthcare and social sciences that can help explain current dynamics through the study and analysis of past events. A sociocultural approach based on past epidemics, for instance, can help to explain vaccine hesitancy through individuals’ relational embeddedness in social structures (Lupton, 2021; Paul et al., 2022). Economic studies of past pandemics can help justify a concerted investment by the global community in eradicating pandemic viruses as quickly as possible (Jordà, Singh, and Taylor, 2020). More importantly for our argument, considerable efforts have been made in political economy and postcolonial studies to examine the remnants of the colonial endeavours of the 19th century (and previous ones).

In our view, it is vital for activists in the Access to Medicines movement and for development professionals to understand the deeply rooted colonial issues permeating medicines research, development, and policy. It is equally important for public health, global health, and medical students to

familiarise themselves with the heritage of the current global health system, which has its roots in the colonial enterprise of ‘tropical health’ (Fofana, 2021). Finally, as one of us is located in a Business School, maybe the biggest opportunity of all lies in an education for business and management students that is geared toward comprehending the global connectedness and consequences of current bio-pharmaceutical business models and market structures. As tomorrow’s leaders of pharmaceutical and biotechnology firms, it is with these students that responsibility for a profound change in the system of privatised and inequitable healthcare lies. Global social justice can only ever be achieved if healthcare truly becomes a right for all, achievable, accessible, and available no matter where in the world they live.

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