

The Impediments to Global Health Justice: What can and should be Improved from COVID to make Health Affordable and Accessible to Everyone

Joseph Ernest Lloyd, Xu Yihua

Department of Epidemiology and Health Statistics,
School of Public Health,
Tongji Medical College of Huazhong University of Science and Technology

Abstract: *During the last days of 2019, China was hit with a novel corona virus. What was hoped to be a temporary epidemic transitioned to a global pandemic that is haunting the planet and its inhabitants. With all hands on deck, and the scientific world searching for solutions, vaccines were produced to mitigate the health crisis. What was supposed to be a solution actually exposed more obstacles that have hindered the global health goals. While a lot has been invested into the affordability and accessibility of health care services, we have witnessed low-income countries struggle to obtain and distribute vaccines for the immunization against COVID. [1] Wealthy nations have had a siege on the production and rollout of vaccines evident by the statistics seen lately. Some wealthy countries have vaccinated about 40-50% of their population, and were on course to reach herd immunity before the emergence of Omicron. [2] On the contrary, many low-income countries are yet to vaccinate about 6% of their population.*

Keywords: LMICs, HICs, PPE, variants, COVID-19

1. Background

COVID variants

All viruses replicate over a period of time. When a virus replicates (makes copies of itself), it sometimes changes, and these changes are called “mutations”. A virus with one or more new mutations is referred to as a “variant” of the original virus. Biologically, viruses tend to mutate when they are being spread in a population. When changes occur to the nucleus, a virus may become more or less transmissible, or produce more or less severe diseases or effects. The COVID-19 drugs or vaccines that are currently being produced or have been approved are expected to provide at least some protection against new virus variants because these vaccines elicit a broad immune response involving a range of antibodies and cells. Therefore, changes or mutations to the virus should not make vaccines completely ineffective. In the event that any of these vaccines prove to be less effective against one or more variants, it will be possible to change the composition of the vaccines to protect against these variants. [3]

The appearance of the omicron variant in different countries around the globe only proves how mutation of this virus is the main source of what appears to be an overbearing and never-ending pandemic. The emergence of this worrying variant comes at a pivotal moment in the course of the pandemic – when everyone thought the end was near. With the visible pattern of the next variant being more transmissible or lethal than the previous variants, it is imperative that we vaccinate more people to stop the mutation of the virus. With Alpha, Beta, Delta and now Omicron, we can definitely expect another variant if we do not act accordingly.

LMICs and HICs

A lot of work has been done to ensure equitable distribution of vaccines, but with high income countries like America,

China and the UK accounting for two-third of the vaccines administered, it is difficult to ignore the situation and its threats to global health. [4] We must remember that none of us is safe till everyone is safe. Singapore, a case study and a high-income country, has been largely unaffected. Unlike low and medium income countries (LMICs), Singapore has the infrastructural, logistical, medical tools and technical resources to contain the virus. Singapore applied a comprehensive surveillance strategy early on in the outbreak, with rigorous tracing of all case contacts followed by rapid quarantining. They used widespread testing so a patient with any suspicion of COVID-19 could be rapidly tested. Strict infection control practices were instituted at health care facilities, and health care workers were provided with adequate personal protective equipment (PPE). Communication of information to the population was knowledgeable and unambiguous. [5] In efforts to continue tracing COVID-19 contacts, the Government of Singapore has developed a contact tracing app, “Trace Together,” that works by Bluetooth technology. [6]

LMICs do not have the technical or professional resources, leverage of technology, infrastructural, and logistical structures. They can only rely on administering vaccines. Health care facilities in LMICs are overwhelmed by patients with COVID-19. [7] They are already overcrowded with those suffering from pneumonia, human immunodeficiency virus (HIV), tuberculosis (TB), malaria and patients in need of surgical treatment. Rapid COVID-19 testing has proven to be useful in confirming that patients have a viral illness and therefore do not require precious antibiotics. [8] Even if they were abundant, there is a significant shortage of resources such as oxygen, ventilators, infusion pumps, and all of the other necessities for taking care of patients with severe respiratory conditions. Curiously, water and electricity supplies cannot be relied on in LMICs. That brings us to the most overwhelming shortage of all—namely, health care personnel, including

Volume 11 Issue 4, April 2022

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

physicians—especially, anesthesiologists, who are on the front lines of any pandemic like COVID-19. [9]

Other issues

In addition to some of the infrastructural and logistical challenges faced by LMIC, there are many reasons why vaccine rates in these countries are low – communication, misconceptions, religion and culture.

Communication- in Ghana, health officials believe that many of the challenges they faced could be solved by proper dissemination of information. Like Ghana, some LMICs do not have internet connectivity, telecommunication network in some deprived or isolated regions, and strangely, there has been no political will to properly educate and inform citizens about COVID. In Liberia, the government and its elected officials budgeted in excess of three million dollars in total for personal engagements, but couldn't budget a dime for risk communication and engagements of COVID, the distribution of donated vaccines, or the purchase of it. This is a clear indication of the lack of political will by a government to protect its people. [10]

Misconception- residents of LMIC doubt the efficacy of the vaccines because it was developed by foreign countries and faster than it would have normally taken. People are concerned about taking vaccines that have been associated with so many side effects. Secondly, ‘vaccines fatigue’. People who are single or double-vaccinated grow tired of the numerous shots. The second dose, first and second booster shots are all turn-offs and leave people demotivated. A holistic study done in Ghana and Bangladesh (both considered LMICs) showed that residents were concerned about the safety of the vaccines, and some grew tired of the unceasing shots. [11]A lot of residents who have been vaccinated twice are not considering getting the booster shots.

Religion and culture

Social behavior, religion and culture are factors that influence the public health of a region or population. Religious groups and institutions have played an integral part in promoting and providing health services. However, not all members of the religious institutions believe in scientific findings. Some believe in the existence of a supernatural being that heals and delivers them from all diseases. Interestingly, we witnessed religious groups pushing to gather in worship during the direst moments of COVID. This act threatened the efforts and progress made by social distancing that was initially introduced to curb the spread of the virus. Some indigenous tribes are more likely to take native herbs than prescribed drugs or vaccines. In May 2020, herbs from the Madagascar were shipped across Africa and marketed as a “cure” for COVID. LMICs like Congo, Tanzania, Ghana, Liberia and Senegal all demanded and accepted the tonic herbal “cure” from the Madagascar. There was a huge demand on the African continent and this only proved that more health education needs to be carried out. [12]

2. Discussion

Global infection threats know no borders. A disease anywhere is a disease everywhere. If anything, this COVID pandemic has reminded us of being one race-the human race- and how interconnected and vulnerable we are to unforeseen circumstances. [13] With at least a shot of vaccines being administered in every country around the globe, we should be hopeful that the end of the COVID pandemic is near. For this to happen, a fair and equal distribution of vaccines globally is mandatory. However, some countries and regions are experiencing difficulties with their vaccines rollout programs because of existing and new-found challenges. These challenges aren't only seen in LMICs, but can also be seen in some regions of the HICs. These deprived regions share some similarities with LMICs. The reemergence of diseases in minority groups, deprived regions and LMICs is mainly attributed to some of the health burdens in this paper. The challenges found in LMICs and most-deprived regions are rare and uncommon health problems in less-deprived regions of HICs. In addition to the availability of vaccines, these challenges are the obstacles to ending this pandemic and subsequently achieving our global health targets of 2030. The structural inequalities, low patient to medical officers' ratio in LMICs hinder the accessibility of COVID treatment and other health treatments as well.

Africa, a continent of 57 countries, has 2.3 medical health workers per 1000 individuals. On the contrary, the Americas can proudly boast of 24.8 medical health workers per 1000 individuals. The regions of sub-Saharan Africa have an alarming shortage of healthcare workers, with just 2 doctors and 11 nursing personnel per 10,000 patients. This ratio, in comparison with 19 doctors and 49 nursing personnel in the Americas and with 32 and 78, respectively, in Europe, is unacceptable. [14]

With this concerning health statistics, we expect the inoculation process of COVID vaccines in LMICs to be slower than in HICs. This deficiency of the system undermines the Universal Health Coverage (UHC) which suggests the availability of health services to all people according to their requirement without suffering from financial adversity or any impediment. If the shortage of medical health workers is met accordingly, then UHC will succeed in its 2030 mission framed in the Sustainable Development Goal (SDG-3).

3. Conclusion

With each passing day that residents of low-income countries remain unvaccinated, there is a high possibility of a new variant among populations that are unvaccinated. If we lower the amount of virus especially low income countries, we reduce the opportunity for it to mutate and potentially produce new variants of concern. The omicron variant initially began in South Africa but spread to different countries around the world. The delta variant began in India, and like Omicron it was highly transmissible and spread quickly to different regions. Vaccination, social distancing and hand washing are our best tools to reduce the level of virus in communities. [5]Low-income countries have had to

rely on vaccine diplomacy to inoculate their citizens. To defeat COVID-19 and prepare for possible future outbreaks, LMIC would need more than diplomatic gestures. Low-income countries are handicapped by economical, societal, cultural, environmental and social conditions. These underlying conditions does not only threaten the battle against COVID but gives us glaring visuals of the challenges we (human race) face as it relates to achieving our sustainable development goals for global health (Ensure healthy lives and promote well-being for all at all ages).[15]. There should be concrete, intentional, well-planned programs to ensure equal vaccine distribution to every country during this pandemic.

As HICs continue to rollout the booster programs, the undeniable existence and threat of new variants of covid-19 still linger because of the unavailability of vaccines and the lack of medical infrastructures in LMIC. In the midst of their own crisis, well-resourced governments and organizations should remember the needs of those less well-off. Non-governmental organizations (NGOs) that normally work in low-income countries also need to offer support and practical help. Governments, departments of health, and medical professional organizations need to be providing clear and unequivocal information about COVID-19; how to prevent its spread, who needs to be tested for it, and how to manage if one becomes infected. This is a unique opportunity for WHO to work with other countries to improve health infrastructures, affordability and its accessibility to their citizens. This will not only help end the current crisis but prepare the world for future outbreaks.

Lastly, government of every nation should responsibly prioritize the health of its citizens. They should be able to allocate funds for health care, maintain a minimum reserve exclusively for any health outbreak, make wise choices and decisions, and exercise the political will to educate their citizens about health issues- not limited to COVID but inclusive of sexual, reproductive, health threats and scientific ways to keep the citizens safe.

References

- [1] Benfer EA. Health Justice: A Framework (and Call to Action) for the Elimination of Health Inequity and Social Injustice. *Am Univ Law Rev.* 2015; 65(2):275-351. PMID: 28221739.
- [2] Acharya, K.P., Ghimire, T.R. & Subramanya, S.H. Access to and equitable distribution of COVID-19 vaccine in low-income countries. *npj Vaccines* 6, 54 (2021). <https://doi.org/10.1038/s41541-021-00323-6>
- [3] www.who.int/news-room/feature-stories/detail/the-effects-of-virus-variants-on-covid-19-vaccines
- [4] Why is a global Covid-19 vaccine rollout vital? 24 March 2021. <https://www.gavi.org/vaccineswork>
- [5] Bong, C. L., Brasher, C., Chikumba, E., McDougall, R., Mellin-Olsen, J., & Enright, A. (2020). The COVID-19 Pandemic: Effects on Low- and Middle-Income Countries. *Anesthesia and analgesia*, 131(1), 86–92. <https://doi.org/10.1213/ANE.0000000000004846> Kempthorne P, Morriss WW, Mellin-Olsen J, Gore-Booth J. The WFSA Global Anesthesia Workforce Survey. *Anesth Analg.* 2017; 125:981–990. [PubMed] [Google Scholar]
- [6] Baharudin H. Software for Singapore contact tracing app to be free for global use. Available at: <https://www.straitstimes.com/singapore/software-for-singapore-contact-tracing-app-to-be-free-for-global-use>. Accessed March 26, 2020.
- [7] Prin M, Guglielminotti J, Mtalimanja O, Li G, Charles A. Emergency-to-elective surgery ratio: a global indicator of access to surgical care. *World J Surg.* 2018;42:1971–1980. [PubMed] [Google Scholar]
- [8] Tagoe ET, Sheikh N, Morton A, Nonvignon J, Sarker AR, Williams L and Megiddo I (2021) COVID-19 Vaccination in Lower-Middle Income Countries: National Stakeholder Views on Challenges, Barriers, and Potential Solutions. *Front. Public Health* 9:709127. doi: 10.3389/fpubh.2021.709127
- [9] Kushner A, Groen RS, Kingham TP. Percentage of cesarean sections among total surgical procedures in sub-Saharan Africa: possible indicator of the overall adequacy of surgical care. *World J Surg.* 2020 [Epub ahead of print]. [PubMed] [Google Scholar]
- [10] Africa Is in Pressing Need of Doctors with 1 Doctor for 10,000 People! zm.tauedu.org/demand-for-doctors-in-Africa
- [11] www.who.int/news-room/feature-stories/detail/the-effects-of-virus-variants-on-covid-19-vaccines
- [12] <https://frontpageafricaonline.com/front-slider/liberia-lawmakers-receive-another-us15k-for-despite-public-rebuke>
- [13] Health and justice <https://www.england.nhs.uk/commissioning/health-justice>
- [14] Linda Nordling (May 2020) unproven herbal remedy against COVID-19 could fuel drug-resistant malaria doi: 10.1126/science.abc6665
- [15] Sustainable Development Goals (SDGs) https://www.who.int/health-topics/sustainable-development-goals#tab=tab_3