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TOWARDS A GLOBAL YET DISTRIBUTED NETWORK OF STOCKPILES OF ESSENTIAL MEDICAL SUPPLIES

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Abstract




The COVID-19 pandemic has highlighted the need for a coordinated global response to future pandemics, especially in low-income countries. This policy brief proposes that the G20 countries provide a political endorsement for a G20-led stockpile of essential medicines and equipment, which can be used to respond to health emergencies at the global, regional, and local levels. The World Health Organization (WHO) will play a critical role in identifying essential items for


the stockpile, and in determining which countries have the capacity to physically hold them. The G20 countries will need to volunteer to contribute specific materials to the stockpile, as per their economic and material capabilities. Regional hubs for pandemic response will need to be established in consultation with the WHO to release items from the stockpile in the event of a crisis. The WHO will have the power to tap into the stockpiles for declared pandemics or health emergencies and will be responsible for delivering aid.



The Challenge



1




The COVID-19 pandemic brought about unprecedented challenges worldwide, including shortages of essential medicines and equipment. The pandemic caused a significant strain on healthcare systems globally, which led to a surge in demand for medical supplies and equipment such as personal protective equipment (PPE), ventilators, and diagnostic kits. COVID-19 led to the closure of factories and disruptions in transport and logistics, which made it difficult for manufacturers to produce and deliver medical supplies and equipment. This experience also demonstrated the fragility of critical supply chains.

For example, despite being the largest economies of the world, G20 countries faced challenges in sourcing and distributing essential medical supplies during the pandemic. In the US, the shortage of masks was such a significant problem that the Centre for Disease Control changed its guidelines of mask wearing to ensure a decrease in the demand, while prioritising the access for already limited N95 masks. The country only had 1 percent of the number of masks required to prevent the spread of infections and faced serious difficulties in acquiring them.¹

The challenge during the pandemic was three-fold: lack of timely access to adequate medical supplies, high cost of ramping up exigent manufacturing capacity, and disproportionate impact of these constraints on the least developed countries (LDCs). Sudden increase in the demand for medical supplies led to a significant shortage of supplies in the global market. This was exacerbated by the inability of existing manufacturing capacity to ramp up adequately and in time to meet the surge in demand. This affected both supply of essential medicines, including those used to treat Covid-19 infection and medical equipment. Furthermore, supply chain disruptions caused by lockdowns and export restrictions on medical supplies and their intermediary components exacerbated shortages² and laid bare the consequences of not focusing on supply chain resilience. According to one analysis, deaths of tens of thousands of healthcare workers during the pandemic can be attributed to a lack of appropriate PPEs.³

The manufacturing of medical supplies and equipment is also highly globalised, with many components and raw materials sourced from different countries. The increased globalised nature of supply chains made the shortages more severe.



Take the example of PPEs. Analysis of the global supply chains involving PPEs shows high degree of geographic and regional concentration.⁴ Three major clusters produce almost all the world's PPEs; Asia, Europe, and the US, with China, Germany, and the US being dominant players respectively. China alone produced more than 40 percent of all PPEs pre-pandemic.⁵ Furthermore, China is also an important intermediary in the supply chain involving other countries. Therefore, any abrupt or large supply disruptions from China is bound to have a spill-over impact throughout the world.

Although the entire global community was impacted by these constrains, the major brunt of the consequences from these disruptions was borne by the developing world, especially LDCs. Resource limitations meant that these countries were outbid by advanced economies for already limited supplies. This was starkly visible in the case of Covid-19 vaccines where larger economies were able to secure supplies and start vaccinating as much as 100 days ahead of smaller economies.⁶


There are several ways these challenges could be addressed. First, a

national stockpile of essential medical supplies can help ameliorate damages from such supply-demand disruptions. However, very few countries have such national stockpile. Although the US has a National Strategic Stockpile, it was inadequately replenished after the 2009 flu pandemic so it was of limited help during Covid-19.⁷ Another way could be to have additional manufacturing supply at a global level that can be ramped up during a crisis such as the Covid-19 pandemic. However, ramping up manufacturing under exigent circumstances comes at higher costs and can exacerbate unequal access to life saving supplies between rich and low-income economies. For example, during the Covid-19 pandemic, WHO estimated that the global PPE production had to be increased by 40 percent to meet the supply-demand mismatch.⁸

Therefore, to address these challenges, a global, coordinated approach is needed. Maintaining a buffer stock during a non-pandemic time can be sufficient to ramp up supply during a public health emergency. The G20 should take the lead in establishing such a mechanism.

The G20's Role

2



The G20 represents around 80 percent of the global GDP and 60 percent of the world's population. The forum aims to promote global economic cooperation and address pressing global issues such as economic growth, financial stability, climate change, global health crises, trade, employment, and sustainable development. It serves as a platform for dialogue and collaboration to foster economic stability and prosperity worldwide. G20 members have the potential to work together and leverage their collective resources and expertise to tackle complex global problems that no single country can address alone. The G20 shapes the global agenda and norms through its communique and declarations, which can influence the policies and priorities of other international organisations and forums.

The G20 must leverage their collective influence and power to establish a stockpile mechanism which will hold stock of essential medicines and equipment. This stockpile would be used to respond to crisis situations such as an epidemic or a pandemic, especially in LDCs. This proposal will help in achieving SDG-3.d, which seeks to “strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks”.


It is notable that India proposed a similar but regional initiative earlier this year during the Voices of Global South Summit 2023. Under the newly launched Aarogya Maitri initiative, India pledged to offer vital medical supplies to any developing nation impacted natural catastrophes or other humanitarian crises. The same principle can be extended at a global level with proactive endorsement of the G20.



Recommendations to the G20



3




The G20 should provide political endorsement to a mechanism that explores the formation of a stockpile, which will hold stock of essential medicines and equipment. This stockpile would be used to respond to public health emergencies across all levels; local, regional, or global, including crisis situations such as an epidemic or a pandemic, especially in LDCs. This mechanism can be operationalised in a multifaceted manner.

The World Health Organization (WHO) plays a critical role in managing and preventing pandemics. It also plays a vital role in research and development efforts, including the evaluation and approval of vaccines and treatments. Additionally, WHO works to prevent pandemics by promoting and implementing measures to strengthen healthcare systems, improve disease surveillance, and address the underlying socioeconomic and environmental factors that contribute to disease outbreaks.

Given that WHO has relevant expertise in this field, it will formulate a dynamic list of essential medicine and equipment necessary to respond to a public health

crisis, both at sub-regional and regional levels. This information would be updated periodically and made available on an internal dashboard accessible to WHO and its member states. WHO, in partnership with the country hosting the regional stockpile would also ensure maintenance of stockpiled medicines and medical equipment. This includes periodically restocking expired medicines and regular inspections of medical and health-related equipment. WHO can also consider transferring medicines and equipment from the stockpile which is within 6 months of expiration to willing countries, with a priority given to low- and middle-income countries, at a reduced cost for their immediate use. The sustained demand to maintain this stockpile could also lead to a spill-over impact of reducing prices for these essential products, making them more affordable to buyers.

Each G20 country has a unique set of strengths, both in terms of industrial capacity and financial strength. Each country would volunteer to contribute specific materials identified in a WHO-compiled list according to their economic and material capabilities. For example, countries with large manufacturing bases would commit to




a specific item and set quantity from the list while others with better financial resources would instead contribute to financing efforts to build resilient supply chains by expanding production for essential medicine and equipment in other countries.

The Covid-19 experience was unique as it affected a significant part of the world at the same time. In the future however, it is quite likely that the world sees a higher share of localised epidemics and pandemics. To address the risk, WHO in consultation with the G20 nations will identify countries which have the capacity to physically hold these stockpiles for future pandemic response. These countries would serve as a regional hub for pandemic response and can be spread across the globe in multiple countries according to the regional classifications used by WHO. These would include establishing one or more hubs for Africa, Americas, South-East Asia, Europe, Eastern Mediterranean, and Western Pacific. In the event of a public health emergency, the regional hub would respond with all possible help, including releasing items from the stockpile.

Once this structure is institutionalised, it becomes extremely important to

develop standards according to which items from the stockpiles would be released. Given its extensive expertise and to avoid duplication of work, the power to tap into the stockpiles for a declared epidemic, pandemic or any other health emergency would rest with WHO. The G20 countries can be consulted for this purpose, if needed. The responsibility for delivering this aid would also rest with WHO. Once the WHO decides that a public health emergency merits tapping into the stockpile, the regional hub will release required items to the affected country or region. Existing efforts to build a resilient supply chain network can be incorporated into this proposal.

A Pandemic Treaty is currently being negotiated by the International Negotiating Body at WHO. The zero-draft of the treaty recognises the shortcomings of the preparedness for and response to the COVID-19 pandemic. It underscores the need for an adequate, equitable, transparent, robust, agile, effective, and diverse global supply chain and logistics network for pandemic prevention, preparedness, response, and recovery.⁹ The draft explicitly calls for WHO to determine the “types and size of products needed for robust pandemic prevention,



preparedness and response, including costs and logistics for establishing and maintaining strategic stockpiles of such products...”¹⁰

This proposal would help addressing the fragility of critical supply chains for essential medical supplies and

equipment worldwide. The shortage of these items has had severe consequences, including the unnecessary deaths of healthcare workers and patients. It is crucial that measures are put in place to reduce the impact of adverse events like the pandemic.

Attribution: Saurabh Todi, Shambhavi Naik, and Harshit Kukreja, “Towards a Global Yet Distributed Network of Stockpiles of Essential Medical Supplies,” *T20 Policy Brief*, July 2023.

Endnotes

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