COVID-19 threat to drug chains for malaria, other diseases

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Line at a pharmacy in South Korea.Copyright: Rickinasia (CC BY-SA 4.0)

COVID-19 lockdowns can disrupt global supply chains for essential drugs and affect other health outcomes.

COVID-19 has paralyzed the world. Apart from directly affecting the lives of people globally, the pandemic has led to a domino effect on other health outcomes.

With the lockdown of entire countries, global supply chains of health commodities are at risk. This could lead to shortages of medicines across the world, including treatments for critical illnesses, as highlighted by the US Food and Drug Administration.

This is especially worrying for low and middle-income countries (LMICs) that still bear the brunt of the burden of communicable diseases such as malaria, HIV/AIDS and tuberculosis. Their health systems are likely to be stretched thin in response to a spike in COVID-19 cases and shortages of medicines to treat other communicable diseases like malaria are likely to make matters worse. The impact of COVID-19 on pharmaceutical supply chains could imperil progress made against malaria in Asia Pacific and beyond.

Three trends reveal the vulnerabilities of our supply chains:

1. Disruptions in the production of raw materials may lead to shortages of essential medicines: China's Hubei province, where the SARS-CoV-2 coronavirus outbreak first emerged, is one of the hubs for the production of Active Pharmaceutical Ingredients (APIs), which are responsible for the intended effects of drugs. The two-month lockdown including factory closures sparked worries in countries like India, a major exporter of generic drugs, that rely heavily on China as a source of APIs.
2. As countries turn inwards, global supply chains may reach breaking point: Despite reports of China reopening factories and aiming to resume full production capacity this month, national restrictions on travel, freight and movement of people to limit the spread of the virus will likely continue to impact the supply of essential medicines. The nationalization of drug supplies and freezing of exports of essential medicines due to fears of domestic shortages could further disrupt procurement operations.
3. The availability of existing essential medicines on the market is

> also at risk: Take the example of chloroquine (or hydroxychloroquine)—an antimalarial drug—which has gained publicity as a possible treatment for COVID-19. This has already led to shortages of the drug due to hoarding as reported for example in Myanmar. This is likely to be the case in other countries. If this behavior spreads, it may have implications on the drug's availability for malaria patients. In response, Myanmar is now enforcing it as a "prescription only medicine" to prevent it from being snatched off the shelves.

The situation is rapidly evolving. While it is too early to know how COVID-19 will truly impact the availability of essential medicines, the pandemic has exposed weaknesses of supply chain systems worldwide and this could have a detrimental impact on the control of other communicable diseases like malaria.

There are few contingency measures in place to help countries predict how this might disrupt the availability of medicines downstream, or measures that permit quick action to mitigate risks. Even more, shortage of medicines leave an opportunity for substandard and falsified alternatives to slip through the cracks, as evidenced by recent reports of fake chloroquine on the African continent. These pose a whole other series of consequences for patients including potential treatment failure, enhanced drug resistance or even death.

The Asia Pacific region has made unprecedented progress in curbing the number of malaria cases and deaths putting it mostly on track to meet the 2030 elimination goal. Lower availability of essential antimalarial drugs might jeopardize these efforts. Any shortage in chloroquine, for example, would put patients at risk in countries where the majority of cases are of relapsing malaria, for which chloroquine is an essential part of the treatment. It is imperative that we do not lose sight of the fight against other diseases, while formulating a robust response to the

ongoing epidemic.

We need to ensure that the level of commitment and actions match the level of the threat we face from existing communicable diseases and new pandemic threats: more measures are required to secure and strengthen our supply chains, more collaboration across sectors, better data, political and financial backing to support mitigation efforts around supply chain management issues.

We need more mechanisms in place to closely monitor the supply chains and contingency plans to assess risks and bottlenecks quickly. Real-time data and exchange of information on issues such as potential blockages and shipping delays must be shared by all stakeholders. Government ministries, manufacturers, customs officials and disease programs must collaborate to come up with shared solutions to anticipated shortages.

There are some good examples. India formed a high-level committee to discuss possible steps to minimize the impact to domestic supply chain. Manufacturers are all ramping up production and committing to donate tens of thousands of hydroxychloroquine tablets so that those are readily available if proven efficacious against COVID-19. The Pandemic Supply Chain Network—a platform to facilitate collaboration with industry—is working to increase production of COVID—19 products to meet global demand.

We also need better resourced National Regulatory Authorities (NRAs), especially in LMICs. This will enable routine quality monitoring throughout the supply chain to prevent irrational use of medicines, or circulation of poor-quality drugs. NRAs must expedite the introduction of COVID-19-related vaccines and treatments once those are market-ready.

The pandemic is a stark reminder of the fragmented regulatory

environment within and across regions. More than ever, this highlights the need for NRAs to collaborate, share information and rely on one another's work to avoid the duplication of resources and introduce life-saving commodities quickly to patients.

Regulators should consider making concessionary provisions to facilitate regulatory reliance—the act of using another trusted regulator's decision to support their own decision-making—to enhance process efficiency and facilitate timely access to not only new treatments but also alternative sources of essential medicines.

This would allow more resources to focus on improving regulatory effectiveness in post-market activities, such as the monitoring of the safe use of new COVID-19 treatments and the quality surveillance of other essential health products.

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