

How to prevent another major pandemic

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Employees packing boxes with Covid-19 vaccine at the packaging and dispatch department in Pune, Maharashtra, India, on Tuesday, 23 February 2021 Credit: UNICEF / UN0420459 / Krishnan

The world could have been much better prepared for COVID-19. So now we must ask: How well prepared are we going to be for the next pandemic?

The risk of another [pandemic](#) is high.

Our 21st century way of life increases this risk. Climate change, intensive farming and international travel, enable diseases to spread across the world faster than ever before.

As the Omicron variant spreads across the world at rapid speed, we are reminded yet again of the need for [global networks](#) that work together to identify and stop infectious disease.

The task facing world leaders now, even as they continue to deal with COVID-19, is to work together to ensure we are better prepared for the next outbreak.

There are two paths [world leaders](#) can take.

It's a little like Aesop's fable, The Ant and the Grasshopper—a story about the virtues of planning for the future. Like the ants in the fable, we could learn from COVID-19, stock-up, prepare and keep watch as a [global community](#).

Or policymakers could breathe a sigh of relief, hope nothing like this happens again, and carry on much as before.

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Governments cannot make the same mistakes again.

They must do better.

And they must work together to strengthen global health systems to better prevent, prepare for and respond to the next pandemic.

Here's how:

1. Improve global coordination and leadership

The problem

The world has dealt with outbreaks before.

Nipah (1999); SARS (2003); H5N1 (2004); H1N1 (2009); MERS (2011); Ebola (2014); Zika (2015) were all warning signs that a new infectious disease could appear and become a global pandemic.

Yet the structures needed to coordinate a global response to COVID-19 were not in place.

Pandemics cross borders. They need countries to work together. Throughout the current pandemic, leaders have struggled to tackle COVID-19 collectively.

This has created a vacuum of global leadership and strategy.

The solution

Global problems need global solutions.

While action is needed at local, national and regional levels to improve preparedness, there are a set of activities best coordinated globally.

There is strong consensus in three recent reports—[The Independent Panel for Pandemic Preparedness and Response \(IPPPR\)](#), [G20 High Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response \(HLIP\)](#), and the [Pan-European Commission on Health and Sustainable Development \(Pan-European Commission\)](#) —that new structures are needed to bring together political leaders to end this pandemic and prevent the next

Therefore, a new Global Health Threats Council or Board should work with existing groups like the World Health Organization, the Global

Fund, Gavi, CEPI, and not duplicate their work or activities.

There must also be a strong role for low- and middle-income country governments in any new structures, to bring experience and expertise of tackling epidemics.

The world needs urgent progress, not paralysis. And these changes must go hand-in-hand with more funding.

2. Provide a sound financial footing for pandemic preparedness and response

The problem

Global solutions need collective investment.

Since the COVID-19 pandemic started, we have seen increased investment in research, manufacturing and distribution of COVID-19 tests, treatments and vaccines.

Paradoxically, we've not seen the same increase in Research and Development (R&D) for diseases that are at risk of becoming the next pandemic. Continuing to fight the COVID-19 pandemic doesn't lower the chances of another health threat.

The health and economic benefit of investing in these tools now and for future pandemic diseases has never been clearer. But major gaps in the world's capabilities persist, such as in globally networked surveillance and research to prevent and detect emerging or escalating infectious diseases. The mechanisms to mobilize global funding for these crucial tools are limited, leaving every country in our interconnected world vulnerable.

The solution

We need governments to build collective financing mechanisms to transform the world's ability to prepare for and respond to pandemic threats.

Governments' contributions to new financing mechanisms, such as the US government established fund for Global Health Security and [pandemic preparedness](#), must be in proportion to their ability to pay. And this money must be in addition to overseas development assistance, so that it doesn't compete with other critical health and development priorities.

3. Invest in the gaps in infrastructure to monitor and respond to threats

The problem

COVID-19 has shown us the blind spots in the world's ability to detect, track and respond to emerging viruses.

The world did not have the right infrastructure in place to respond to COVID-19 and so it could not act at speed to contain the initial outbreak.

To prevent pandemics, we need to invest in three areas: surveillance, manufacturing and co-ordinated research and development.

The solution

Surveillance

Finding new pathogens quickly is critical to containing them.

There are too many global 'dark spots' where new viruses cannot be identified—but building locally-owned, internationally-connected genomic surveillance networks will ensure we can spot potential dangers before they become a global problem. This network must work with local communities and be used between outbreaks to tackle other infectious diseases and urgent global threats.

With sustainable, long-term investment this network can inform powerful regional and international responses to all infectious diseases rapidly and efficiently.

Manufacturing

Throughout COVID-19, we have seen what happens when vaccines and treatments are produced in a small number of countries. High-income countries buy-up the global supply, leaving the virus to thrive elsewhere.

Access to these tools is a question of both supply and delivery.

We need to increase regional manufacturing capacity. This will ensure more people will have access to treatments and vaccines.

While efforts to diversify manufacturing capacity could take several months to have a positive impact on COVID-19 vaccine supply, increasing regional manufacturing capacity will have long term benefits for future pandemics globally, while ensuring local needs are met.

Research and Development (R&D)

At the start of the COVID-19 pandemic, very little was known about the

virus, even less how to diagnose, treat and prevent it. Thankfully, scientists could build on existing research on other coronaviruses, such as vaccines for MERS and new mRNA technology. As a result, multiple vaccines were developed, approved and manufactured in record time.

Next time, the world may not be so lucky.

Consider our response to Ebola, where failures to continue key areas of research between outbreaks led to a delay in the development of usable diagnostics, treatments and vaccines when the next outbreak hit.

There are still no WHO-approved diagnostic tests for six out of the WHO's 10 priority diseases.

We must be prepared for all plausible scenarios—and this means more investment in R&D.

We need a system that leads and supports equitable and collaborative R&D programs to deliver a full range of countermeasures, such as diagnostics, therapeutics, and vaccines, available to respond to a pandemic.

It would need to work with industry as well as global health organizations and have equitable access to its products at its heart.

And will only be successful if leaders commit to transparency and openness in sharing the information they collect with the world.

More information: The paper is available online:
[cms.wellcome.org/sites/default ... reparedness-2025.pdf](https://cms.wellcome.org/sites/default/files/2020-03/reparedness-2025.pdf)

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