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The Coronavirus Pandemic 1 Year On—What Went Wrong?

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January 30, 2021, marked the first anniversary of the declaration by the World Health Organization (WHO) of COVID-19 as a public health emergency of international concern (PHEIC). Thus far, the world has been no match for SARS-CoV-2, with more than **100 million cases and 2.5 million deaths**. The US has been among the world's poorest performers in addressing the pandemic, with more than 500 000 deaths.

Vaccines offer the best chance of returning to normal, but circulating variants pose a major obstacle, particularly the emergence of variants that are more transmissible and are developing partial resistance to vaccines against SARS-CoV-2. With rampant global circulation, SARS-CoV-2 will have ample opportunity to mutate further.

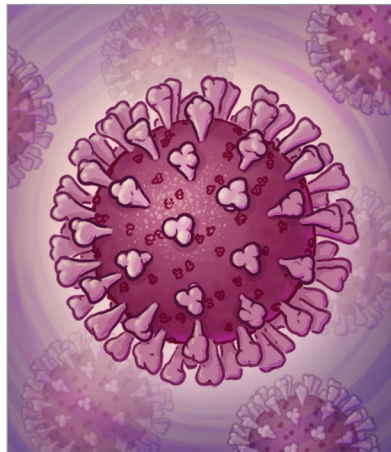
What went wrong and how can society learn from its greatest failures?

The Collapse of Global Solidarity

At a national level, **the lessons are clear**, including undervaluing science, weak public health infrastructure, and public resistance to risk mitigation measures like wearing a mask. At the global level, the collective failures have been still greater. By the time the World Health Assembly met in May 2020, the agency was caught in a geopolitical conflict between the US and China. **World Health Assembly resolution 73.1** directed the WHO's Director-General to appoint the **Independent Panel for Pandemic Preparedness and Response (IPPPR)**, charged with comprehensively evaluating the international health response, especially the WHO's role. Of particular concern was identifying the zoonotic origins of SARS-CoV-2. The Assembly similarly established the **International Health Regulations (IHR) Review Committee** to examine the utility of the world's regulations for governing health security.

On January 18, the IPPPR released its **second interim report** to the WHO's executive board. Just days earlier, on January 13, an expert WHO team finally arrived in Wuhan, China, to study SARS-CoV-2's bio-

logical origins. It took the agency more than a year to negotiate the visit with China, jeopardizing the chance to discover the origins of SARS-CoV-2. The WHO concluded on February 9 that the initial outbreak in Wuhan was most likely naturally occurring,



rather than an **accidental leak from the Wuhan Institute of Technology**, but did give credence to the idea that SARS-CoV-2 originated from an animal shipment from abroad. Even now, there is little transparency as to the scope of the WHO's access to key geographic locations, complete data, and open discussions with Chinese health workers and scientists. The IPPPR's interim report lays bare the failures of the global response, concluding that it would be **"unconscionable"** to fail to heed the lessons of the pandemic.

Early Failure of the Global Health System

SARS-CoV-2 is a highly transmissible pathogen, fueled by asymptomatic spread. Rapid detection of and response at the Wuhan wet market may not have prevented the pandemic, but it was the world's only opportunity. Yet a timeline of events shows major delays in China's reporting and the veracity of information provided to the WHO. The IPPPR concluded the global alert system and the WHO's power to verify key facts are not **"fit for purpose."**

Although the earliest cases probably date back to early December 2019, Wuhan hospitals were seeing **novel unexplained pneumonias** by mid-December. On December 31, 2019, China's National Health Commission finally announced an outbreak of viral pneumonia unrelated to SARS that was "under control" and exhibited no evidence of human-to-human transmission. Yet China did not report the novel viral clusters to the WHO, even though the **IHR requires notification within 24 hours**. Instead, the WHO was alerted through news and social media outlets. The IHR requires the WHO to confirm nonofficial information with the country of origin, but **China did not confirm until January 3, 2020**. Due to the lack of accurate and full reporting, the WHO continued to publish **inaccurate information regarding human-to-human transmission**.

A Better System for Outbreak Detection and Verification

The timeline of events clearly shows the need to empower the WHO to independently verify official reports and to deploy support and containment personnel to member states, including to places where the outbreak originated. Sovereign states will almost certainly resist IPPPR proposals to empower the WHO to enter their territory and gain access to full information. Yet given the unimaginable suffering and economic loss due to the pandemic, strong accountability mechanisms are warranted, including an **inspectorate system** like the ones currently in nuclear nonproliferation treaties.

Also, when the WHO receives credible outbreak information (regardless of the source), it must be able to act while protecting its source from possible retaliation. The IHR provides only limited confidentiality protection of the data source, which places whistleblowers in potential peril.

An Amply Funded WHO

The world needs a better-resourced WHO. The agency's biannual budget typically ranges **between \$4 billion and \$5 billion**

(about that of a large US hospital), with about three-quarters earmarked for specific donor initiatives. Member states should at least double their assessed contributions to the WHO and provide the organization with flexibility to put funding toward the most pressing health threats.

Declaring a PHEIC

The WHO has been criticized for not declaring COVID-19 a global health emergency until January 30, 2020, by which time SARS-CoV-2 had spread to [20 places outside China](#). Yet with limited information, the agency had valid concerns about stimulating panic and an overreaction, which could dilute the significance of future PHEIC declarations. Contrasted with the rigid, binary nature of current PHEIC determinations, an intermediate level declaration could alert countries of evolving threats.

Coordinated National Responses

Even after the PHEIC had been declared, countries were slow to act. In part because governments failed to build IHR core health system capacities, including surveillance, testing, and contact tracing. [Stronger IHR mechanisms to secure funding](#) for and to evaluate health systems would support core capacities, leaving countries far more prepared in the future. National leaders also sought to preserve their economies,

though the health-vs-economy dichotomy proved erroneous. Even as the global economy declined by more than \$7 trillion, countries that responded aggressively fared far better economically. Countries must learn from experience, both by investing in pandemic preparedness and prioritizing health once an outbreak strikes.

Nowhere was the collapse of global solidarity greater than in the global competition for scarce medical resources. Wealthier nations bought up the world's supplies for personal protective equipment, ventilators, and test kits, creating a [global bidding war](#) in which poorer countries could not compete. And although the approval of COVID-19 vaccines before the end of 2020 was a historic achievement, it is clouded by inequitable distribution. High-income countries with their own vaccine supply deals are expected to vaccinate nearly their entire populations by the end of 2021. Lower-income countries ([reliant on the COVID-19 Vaccine Global Access Facility](#)) may not accomplish the same until 2 years later, with some estimates projecting the world will not be [fully vaccinated for a decade](#). In addition to being inequitable, it also puts the whole world at greater risk as SARS-CoV-2 will continue to circulate, mutate to evade vaccines, and again spread across the globe. The major disruptions in low- and middle-income countries' health services, including childhood immunizations,

will continue to cause excess deaths well beyond COVID-19.

Heeding the Warnings for Future Pandemics

Even after the catastrophic effects of earlier outbreaks of SARS, Ebola virus disease, and Zika virus disease, nations became complacent, failing to prepare domestically or fund global response capabilities. The world largely ignored glaring biological warning signals—but that must not be the case this time. With a pandemic that has touched every life on the globe, has already cost more than 2 million lives, has devastated economies, and will continue to afflict the health of societies for years to come, the calls to re-imagine and re-create systems for global health security must not go unheeded. ■

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Correction: This article was corrected on February 16, 2021, to add the fourth sentence to the second paragraph in "The Collapse of Global Solidarity" section.

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