

The 2019 Coronavirus: How to Think About It and How to Respond

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KEY TAKEAWAYS

It is important to place the coronavirus epidemic in the proper context and identify important steps to reduce the chances it becomes a global pandemic.

To minimize the spread of a potential epidemic, a host country must respond rapidly and be fully transparent with its citizens and the international community.

The Trump Administration is moving in the right direction by creating a task force on the virus—but must push for a more effective “whole of government” approach.

On January 9, the United Nations’ specialized agency, the World Health Organization (WHO), announced an outbreak of a new—or novel—coronavirus (2019-nCoV) in the large, central China city of Wuhan.¹

In the nearly three weeks since the announcement, the virus has intensified in China, infecting thousands there, and is now spreading across the globe, far beyond its origin in Hubei Province. Indeed, as of this writing, this new coronavirus has taken upwards of 300 lives, infected some 17,000 people, and has touched all regions of China.² It has reached at least two dozen countries, including the United States, on several continents.³

Unleashed—and amazingly detected—in the midst of the northern hemisphere’s peak influenza (flu) season, the 2019-nCoV epidemic is likely to spread and persist well into the spring—and perhaps

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longer.⁴ Although China sequenced and released the virus' genome to the international community, there are still many questions about 2019-nCoV, including its incubation period, transmissibility, and mortality.⁵

On January 30, after a visit to China, the WHO declared the 2019-nCoV outbreak a global public health emergency, but expressed confidence in China's ability to address the public health crisis emerging in the country.⁶ The following day, the United States announced a domestic public health emergency, placing restrictions on air travel to China, including funneling air traffic from China-specified airports and making provisions for denying entry or the possible quarantine of travelers.⁷

As Chinese public health officials strive to contain the virus, it is important to place this epidemic in the proper context, consider all the possibilities, and identify important steps to reduce the chances this ongoing epidemic becomes a global pandemic in our highly mobile, interconnected world.

Keeping the 2019-nCoV Outbreak in Context

Any epidemic is serious, but some will be more dangerous than others. For instance, the Spanish Influenza of 1918 took an estimated 50 million lives.⁸ Indeed, even the annual flu season currently underway in the United States poses a serious health risk to many.

As a reference, according to the Centers for Disease Control and Prevention (CDC) in June 2019:

Since the 2010–11 season, CDC estimates that during each influenza season [in the United States], influenza virus infection has caused 9.3 million–49 million symptomatic illnesses, 4.3 million–23 million medical visits, 140,000–960,000 hospitalizations, and 12,000–79,000 deaths.⁹

While the seriousness of this virus should not be dismissed, especially in its early stages, the 2019-nCoV is still not even close to the scale of the annual flu numbers experienced by the American people and the United States health care system. So far, as of this writing, the United States has 11 cases of 2019-nCoV and zero fatalities two months after the virus reportedly appeared in Wuhan on or about December 8, 2019.¹⁰

Pushing for Transparency, Especially from China

Although the 2019-nCoV virus reportedly surfaced in Wuhan in early December, the local government waited more than *three weeks* to notify

residents and act.¹¹ Officials then downplayed the seriousness of the disease for several more weeks.¹²

This is not the first cover-up of an epidemic by China: In 2002, Severe Acute Respiratory Syndrome (SARS) killed nearly 800 people and affected 26 countries.¹³ This practice of withholding public health information is unacceptable for both China and the international community.

To minimize the spread of any potential epidemic, a host country must not only respond rapidly, but provide full transparency to advise its own citizenry and the international community. In future outbreaks, timely notification allows the global community to take prudent precautions.

Prioritizing International Cooperation and Coordination

An outbreak of a new, virulent virus such as 2019-nCoV is a global public health concern and requires a coordinated, cooperative international response. Several weeks into the outbreak, China was still reluctant to accept outside assistance. Finally, on January 29, China agreed to allow a WHO team of international public health experts to assist China in its response to the 2019-nCoV outbreak.¹⁴ Beijing must follow through on this offer.

Indeed, the early attitude of an epidemic-afflicted country toward international assistance can serve to help or hinder the efficiency and effectiveness of its efforts to respond to an outbreak. Not providing timely, accurate information regarding important public health issues to foreign capitals can also hamper international public health efforts in a number of understandable ways.

For instance, foreign health officials should not have to rely on press reports, government press releases, or uninvestigated anecdotes to develop an understanding of an outbreak in order to craft and build an effective response.

Employing a “Whole of Government” Approach

The Trump Administration is moving in the right direction by establishing a task force on the coronavirus, led by the Secretary of the Department of Health and Human Services (HHS) and coordinated in the interagency by the National Security Council.¹⁵ But while HHS and the Department of Homeland Security are the leading agencies in responding to such a crisis, supported by other departments, the Department of Defense is currently not a principal on the President’s coronavirus task force.

With its unequaled medical, logistics, transportation, and mobility capabilities, it is critical that the Pentagon be involved comprehensively in planning and crafting a response to the 2019-nCoV outbreak in China.

Monitoring the Situation Closely Using All Means Possible

The United States must closely observe the unfolding situation in China, especially in light of the Chinese government's tight control of information that may affect Chinese public and international perceptions of the central government's handling of the epidemic. U.S. policymakers must not be solely—or even heavily—reliant on information that the Chinese government or the international press provides.

As such, U.S. intelligence and diplomatic community resources that corroborate, correct, or expand information from other governments and sources must be employed to monitor the epidemic in China. Indications of failures in the Chinese public health response to the outbreak, such as panic evacuations or refugee flows from large cities, major military movements into afflicted areas, sickness rates among Chinese health care workers, and the collapse of the Chinese hospital and health care system must be monitored.¹⁶

To this end, a senior representative of the Office of the Director of National Intelligence should be appointed to the coronavirus task force to ensure that the necessary information is gathered and made available to task force decision makers.

Developing an Anti-Viral for the Coronavirus

Counting SARS and 2012 MERS (Middle Eastern respiratory syndrome), this is the third coronavirus in fewer than 20 years.¹⁷ Yet there are no anti-virals currently available for battling this medical menace, which has had global repercussions in all three cases.

Though understandably difficult from a number of perspectives, an international effort, engaging both the public and private sectors and including major philanthropic foundations, must be undertaken to develop a number of preventive, as well as post-infection, responses to the coronavirus, including new vaccines and innovative uses of existing drugs.

Disseminating Information and Detection Capabilities

Good public health information is the first line of defense in responding to an outbreak. Health care workers must be aware of tell-tale symptoms

and know the right questions to ask a sick patient. They must also know how to respond, including hygiene precautions and quarantine procedures, especially in rural health care facilities. To make first-responder medical professionals as effective as possible, efforts must be made to enable testing for the coronavirus locally, rather than having to return a sample to a national laboratory for diagnosis; fortunately, this is being pursued.¹⁸

When an illness evolves to epidemic proportions and threatens to become a pandemic, time becomes a critical, life-preserving factor. As such, reverse-transcription polymerase chain reaction (rRT-PCR) assays must be developed and made available to major U.S. hospitals for this purpose as quickly as possible. Moreover, the public reaction to a rapidly unfolding health emergency is profoundly influenced by the amount, accuracy, frequency, and clarity of information that governments provide to their citizens.

When the public is left wondering what is happening or doubts what it is being told by officials, it quickly loses confidence in anything the government says or recommends. The public is then more susceptible to rumor and false reporting, which can result in panic and make response efforts dramatically more difficult.

Conclusion

In dealing with an emerging crisis such as this one, the fundamentals apply, including keeping the crisis in context, pushing for full transparency, seeking international coordination and cooperation, employing a “whole of government” approach, enhancing epidemic indications and warning, prioritizing the development of treatments, and supporting all elements of the U.S. health care system.

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Endnotes

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