COVID-19: Why the WHO was afraid of crying 'pandemic'
19 March 2020, by Saed Alizamir, Francis De Véricourt, Shouqiang Wang

The World Health Organization has been criticized for being slow to declare a public health emergency and a pandemic as COVID-19 spread. Yale SOM's Saed Alizamir, with Francis de Véricourt of ESMT and Shouqiang Wang of the University of Texas at Dallas, recently published a study that uses game theory to play out the tradeoffs that the WHO and other public agencies face as they try to give timely warnings while maintaining their credibility. We asked them what their findings say about the response to COVID-19.

How do public health agencies maintain credibility while giving timely warnings about potential health disasters?

Public health agencies such as World Health Organization (WHO) are expected to assess the severity of a potential hazard using their advance information, and emit timely updates whenever deemed necessary. Endowed with the sole authority to declare a Public Health Emergency of International Concerns (PHEIC), WHO uses its warning power to elicit the proper response (e.g., travel restrictions, compulsory quarantine, vaccination and treatment) from its member states and the general public. The effectiveness of these warnings in mobilizing actions nevertheless critically depends on the agency's credibility. Unlike governmental organizations such as the Centers for Disease Control and Prevention (CDC) that have Congressionally authorized power to deploy their medical resources, WHO is resource-limited; in fact, its credibility may be the only resource it can leverage.

In managing their credibility, however, such agencies often face two fundamental tradeoffs. In the short run, an early warning message can trigger preemptive actions in a timely fashion and protect the public against potentially dire consequences. But the agency also has an incentive to hold off alarms so as to collect more evidence about the nature of the hazard (especially for risks of a novel nature such as the current coronavirus outbreak). An evidence-based alert is more credible and effective in mobilizing the public and averting unnecessary panics. In the long run, the agency's credibility may be severely blemished and hence, its ability in managing future disasters may be reduced, if the warning is perceived as an overestimation or underestimation of the threat. Therefore, the agency's decision about whether and when to issue a warning message for a current event can impair or cultivate its reputation for the events that will occur in the future.

Unfortunately, balancing these tradeoffs is a challenging task. For instance, WHO's PHEIC declarations, or the lack thereof, have been regularly criticized for either downplaying the risk of an adverse event or exaggerating its threat, discrediting the agency's reputation and casting doubts on the quality of its decisions. In particular, WHO was accused of exaggerating the risk of a relatively mild outbreak by declaring a PHEIC for the 2009 H1N1 epidemic. WHO's reputation was further damaged by its failure to declare a PHEIC

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early enough for the 2014 West Africa Ebola outbreak and having downplayed the risk of an international crisis.

How should governments and individuals react to public health warnings from such organizations?

WHO is a global organization entirely funded by its member states. Therefore, it is by design susceptible to conflict-of-interest (COI) issues that may partially drive its decisions and warnings. WHO's handling of the H1N1 epidemic in 2009 raised serious skepticism about the agency's incentive to benefit the pharmaceutical industry. In the case of Ebola, on the other hand, Europe's economic interests and its dependence on Guinea's mining industry was advanced as a potential motive restraining WHO's action. (Governmental agencies in the U.S.—e.g., CDC—and in China are prone to similar conflict-of-interest concerns to gain political advantages.)

Thus, as recipients of WHO's emergency alerts, governments and individuals should account for the above tradeoffs and COI issues faced by the organization. In particular, our research suggests that management of the agency's credibility/reputation may induce risk misrepresentations in the form of exaggeration (e.g., false alarms) and downplays (e.g., omissions). (Such behaviors by WHO have also been attributed to other reasons, ranging from conspiracy theories to budgeting issues.)

Further, WHO's warnings mainly pertain to the risk of a global spread of a disease with the target audience being the governments of its member states. Each country still needs to tailor its response according to its local situation, and its social and geographical relationships with the infected countries/regions. Therefore, individuals should not over-interpret WHO's warnings, but rather heed the advice provided by their local government agencies in taking preemptive or mitigation measures. Further, WHO and the effectiveness of its warnings critically rely on the accurate and timely information provided by its member states. Therefore, governments need to realize that collaborating with WHO by sharing first-hand information and also sharing resources with other countries can be in their best interest.

How have these dynamics played out in the current coronavirus outbreak?

The current coronavirus outbreak started in late December 2019 from China, which is one of the main contributors to WHO's funding. Unlike the case of Ebola in 2014, where WHO had very little to do with the relatively weak government of Guinea (and sourced most of its data from an NGO), in this case the agency was highly reliant on China's cooperation, especially in terms of information sharing. Further, the director-general of WHO is from the African country of Ethiopia, which has very deep economic ties with China. This may provide some rationale for WHO's reluctance to make a PHEIC declaration about the coronavirus outbreak in its early days. (From a medical perspective, WHO has coordinated the release of pertinent information in a very efficient manner. The agency has managed to leverage its international network of scientists to provide the relevant information for countries to develop a test in a couple of weeks—much faster than SARS in 2003.)

Only after the director-general of WHO visited Beijing and met with Chinese President Xi Jinping did WHO declare PHEIC warning on January 30. Despite this declaration, WHO still applauded the Chinese government's efforts in containing the disease. The director-general of WHO stated that "China is actually setting a new standard for outbreak response," and advised other countries against travel and trade restrictions.

One month after the PHEIC declaration, on February 28, 2020, WHO raised its risk assessment over the spread and potential impacts of the coronavirus from "high" to "very high," the highest level of alert. To some extent, WHO's warning message is further obfuscated by such ambiguous language, as the general public may not understand what constitutes the difference between "high" and "very high."

The way the present health crisis has been unfolding can be better understood in light of the conflicting and complex forces governing WHO's
incentives. Specifically, the emitter of the warning sometimes finds itself in a difficult position where its public alerts must be crafted in a way that they implicitly convey some other political agenda. Similar dynamics are also emblematized by WHO's behavior toward the U.S. government's handling of the outbreak.

**More information:** Saed Alizamir, et al. Warning Against Recurring Risks: An Information Design Approach insights.som.yale.edu/sites/de ...
It/files/Warning.pdf

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