Problematic Traffic Light Approaches to Public Health Emergencies of International Concern (PHEICs)

Introduction

The declaration of a public health emergency of international concern (PHEIC) is a key mechanism within the International Health Regulations (2005) (IHR), and more widely within the global health security governance architecture. It allows the Director-General (DG) of the World Health Organization (WHO), upon advice of an expert Emergency Committee (EC), to declare an event a PHEIC; a global call for governments to prepare for a health emergency(1) . Since this mechanism came into existence, PHEICs have been declared six times, for H1N1 influenza, Polio, Ebola (West Africa), Zika, Ebola (DRC) and COVID-19. ECs met but decided not to declare PHEICs for MERS-CoV, Yellow Fever and Ebola (DRC 2018).

Amidst failures of international cooperation during COVID-19, there are increasing calls to reform the IHR, particularly the PHEIC mechanism, to address problems that have arisen with past emergencies and the current one. These include: a) the DG and EC hesitating to advise or declare a PHEIC for fear of being accused of over-reacting (2); b) states pressuring WHO not to declare a PHEIC in their territory, fearing negative impacts (3) ; c) concern the international community does not respond sufficiently even when a PHEIC *is* declared; and d) the international community failing to follow the "temporary recommendations" that accompany a PHEIC.

The insufficient power of the PHEIC can be seen in the widespread attention to the DG's statement that COVID-19 was a "pandemic" in March 2020--an observation that carried no legal or official significance, but which was seen as an escalation in the face of insufficient action by states to the PHEIC declaration.

One prominent reform proposal seeks to address these issues by replacing the current binary mechanism with an intermediary, tiered or 'traffic light' system under which a public health event could ascend the tiers to indicate increasing levels of global alert, warning of a developing outbreak that does not (yet) constitute a PHEIC. A second suggestion is for a regional PHEIC, where an outbreak constitutes a concern primarily for neighbouring states. Yet, neither of these proposals solve the broader problems with the PHEIC declaration system - and they could introduce new ones.

History of PHEICs and the calls for a tiered approach

PHEIC declarations are often controversial: decisions are multi-factoral, taking into account a range of considerations, beyond the legal criteria (4). Previous tensions with PHEICs have included: the risk of economic disruption for a region already facing hardship, in the case of the delayed PHEIC for Ebola in West Africa (3); the politics of major international events, with Brazil's hosting of the Olympic games amid the Zika PHEIC (5); and whether a declaration would actually bring any "added benefit" compared to the trade restrictions that might result during Ebola in DRC (2019) (6) (7). Moreover, WHO has been accused of being too cautious in PHEIC declaration (for example H1N1) (2), or has been seen to have declared late (Ebola), or criticised for inaction (MERS CoV).

To counter these challenges, discussions of a tiered approach began during the Ebola outbreak in West Africa (8), and the idea has been raised during COVID-19 by the DG (9), EC (10), IHR Review Committee (11), Independent Oversight Advisory Committee of WHO's Health Emergency Programme (12) and member states (13) (14) . The idea of a tiered approach is that it would make the decision a less momentous one, allowing the WHO to signal emerging alarm without creating some of the negative knock-on consequences (until a PHEIC declaration was necessary).

'Traffic light' systems in other sectors

A tiered or 'traffic light' system has an intuitive appeal. Given the nature of WHO as a member state body, its preference for diplomacy during health emergencies (15), and its historical reluctance to declare a PHEIC, it might also be attractive to WHO. But experience in other sectors provides some lessons about the weaknesses of such an approach.

- Integrated Food Security Phase Classification (IPC). The IPC aims to prevent famines through real-time assessments of food security. It grades locations in five phases from green for food secure to maroon for famine/humanitarian catastrophe (16). The aim was for humanitarian stakeholders to make non-political decisions about resource allocation and intervention (17). However, as it is reliant on key indicators, when data is not available the phased system does not get activated, as occurred in Venezuela (18). Evidence from Somalia (2011) demonstrated that the phased approach created a *normalisation of the emergency,* and long-standing inaction, until the Maroon "Famine/Humanitarian Catastrophe" declaration (19).

- US National Terrorism Alert. U.S Department of Homeland Security (DHS)'s Threat Advisory System aimed to provide a "comprehensive and effective means to disseminate information regarding the risk of terrorist attacks to federal, state, and local authorities and to the American people" (20). Although it included five colors (from red – severe through to green - low), it *spent its last five years at yellow and never descended to green*. DHS ultimately terminated the system, concluding that that the information provided with each alert was unactionable, e overly broad, and gave insufficient information to specific regions and sectors. Consequently, public cynicism about the color status prevailed (20).

- UN Humanitarian Emergencies. The three-level Inter-Agency Standing Committee classification system for humanitarian emergencies is convoluted. L1 and L2 emergencies are triggered when any country-level response appears inadequate and may require regional resources and personnel (21). But the criteria for L2 and L3 are the same. *The only classification that has been shown to result in more rapid response and greater use of global agency resources is L3*, but it makes no technical distinction between a sudden natural disaster, or a slow-onset emergency (e.g. famine) and rarely offers clear guidance, even when an L3 is declared (22).

Reality of a tiered PHEIC

These experiences show that tiered systems may not achieve what they set out to do.

What might happen if an outbreak emerged under such a PHEIC mechanism? Firstly, a tiered system would require indicators to delineate between the tiers. The early stages of outbreaks are often characterised by a lack of good data - and even if such data were available, there would be a risk of reducing the PHEIC to a technical tool rather than a normative alarm, meaning that these declarations would carry less political weight, not more.

Meanwhile, political pressure against moving from amber to red would likely be even stronger. As with the US National Terrorism Alert, many outbreaks would be stuck at the "amber" level, creating the perception of a stable, ongoing situation rather than one in need of close attention and preparatory or response action. This would merely recreate the current problem (i.e. states don't take the necessary preparatory or response action), and again risks diluting the power of the PHEIC. At worst, the tiers could lead to even less clarity about what states should or shouldn't be doing.

What about the idea of a "regional PHEIC" system? Firstly, this fails to acknowledge the interconnected reality of our world and the speed of global pathogen spread, raising the danger of states outside affected region feeling a false sense of security, and the likelihood of too-late responses would be high. Second, would states outside the affected region provide assistance to those within it? International capacity to respond to an outbreak with funding, supplies, and convening power often lies outside the region of a health emergency (23). Normatively, such a balkanization of outbreak response would fundamentally challenge important norms of global solidarity encapsulated in Article 44 of IHR, whereby states have an obligation to respond to outbreaks within their borders, but they also have a duty to support other states to build capacity to respond to outbreaks.

Bigger Normative challenges of PHEIC / IHR

The failure of many states to adequately respond to the COVID-19 PHEIC cannot be ignored. However, introducing a tiered mechanism will not address the main problems with the PHEIC system. These problems are political: pressure not to declare a PHEIC; a lack of response by governments upon a PHEIC declaration; non-compliance with the temporary recommendations by the DG following a PHEIC; and a lack of funding to finance preparedness and response domestically and internationally. These political questions are not going to be answered with a more complex, technocratic, and diffuse mechanism.

Instead, we need to understand why many states are not responding to PHEIC declarations or abiding by WHO's recommendations; and why collaboration and assistance for preparedness and response is too rarely seen in practice.

Firstly, we need to develop a more robust evidence base for how governments behave when a PHEIC is declared, and why. Within some countries, a PHEIC declaration triggers automatic actions such as the release of funds, implementation of emergency plans, or changes in protocols. But there is no comprehensive data available as to what effect PHEIC declarations have on national decision making and activity. Without this, the EC and DG are left to make assumptions about what might happen, which is not evidenced.

Secondly, we must engage in institution- and norms-building around what should happen in the event of a PHEIC. As a political instrument a PHEIC needs greater material and normative consequence.

This might be accomplished by tying funding directly to the declaration of a PHEIC, triggering mandatory meetings of key global players like the UN Security Council or the IMF; or requiring states to outline how they will contribute to domestic or global response, through a rapid risk assessment delivered to WHO.

Thirdly, there should be regular simulation exercises of a PHEIC to build trust and transparency in the system. Alternatively, ECs could meet during "peace time" to gain experience and work with governments in building capacity for epidemic preparedness.

Fourth, states must recall the limitations they have put on WHO's powers. A PHEIC declaration is a tool to motivate sovereign states to recognise the existence of an international emergency and act accordingly. Under the current IHR, the WHO has no power to compel them to do so. Tiered or regional declarations will not alter this.

Conclusion

The PHEIC mechanism is a (potentially) powerful, and unique normative tool within the international system to spur collective action. It (and the IHR more broadly) is not perfect. However, the problems with the PHEIC mechanism are not about insufficient gradients of a health emergency. Instead, the tension within this global health security mechanism results from sovereign states' refusal to engage in collective action in response to expert advice from an international organisation, particularly when seeing action as against short-term interests: a classic problem in international relations.

Even though a non-binary PHEIC might appeal to some, analysing similar efforts in other spheres of governance suggests that traffic light systems might only be useful at slowing traffic. A tiered or regional system will introduce bigger problems into global health diplomacy.

Bibliography

1. Gostin L, Phelan A, Coutinho AG, Eccleston-Turner M, Erondu N, Filani O, et al. Ebola in the Democratic Republic of the Congo: time to sound a global alert? The Lancet. 2019;393(10172):617-20.
2. Elbe S. Pandemics, pills, and politics: governing global health security: JHU Press; 2018.
3. Cheng M, & Satter, R. Emails: UN Health Agency resisted declaring Ebola emergency. Associated Press. 2015.
4. Mullen L, Potter C, Gostin LO, Cicero A, Nuzzo JB. An analysis of International Health Regulations Emergency Committees and Public Health Emergency of International Concern Designations. BMJ Global Health. 2020;5(6):e002502.
5. Wenham C. Feminist Global Health Security New York: Oxford University Press 2021.
6. Statement on the meeting of the International Health Regulations (2005) Emergency Committee for Ebola virus disease in the Democratic Republic of the Congo on 12th April 2019 [press release]. 2019.
7. Giesecke J, Stag IH. The truth about PHEICs. Lancet (London, England). 2019.
8. Piot P, Soka MJ, Spencer J. Emergent threats: lessons learnt from Ebola. International Health. 2019;11(5):334-7.
9. Adhanom Ghebreyesus T. Report of the Director-General, 146th Meeting of the Executive Board. Geneva: World Health Organization 2020 3rd February 2020.
10. World Health Organization. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). WHO2020.
11. IHR Review Committee. Third meeting of the review committee on the functioning of the International Health Regulations (2005) during the COVID-19 response. Geneva: World Health Organization 2020 3rd November 2020.
12. Independent Oversight Advisory Committee or the WHO Health Emergencies Programme. Interim report on WHO's response to COVID-19 January-April 2020 Geneva: World Health Organization; 2020.
13. United States Government. Reviewing COVID-19 Response and Strengthening the WHO's Global Emergency Preparedness and Response WHO ROADMAP. In: Services DoHaH, editor. 2020.
14. France & Germany. Non-Paper on Strengthening WHO's leading and coordinating role in global health 2020.
15. Davies SE, Kamradt-Scott A, Rushton S. Disease diplomacy : international norms and global health security2015.
16. IPC Global Partners. IPC Overview and Classification System. 2008.
17. IPC. Integrated Food Security Phase Classification User Guide. Rome: FAO; 2009.
18. Doocy S, Ververs M-T, Spiegel P, Beyrer C. The food security and nutrition crisis in Venezuela. Social Science & Medicine. 2019;226:63-8.
19. Fredriksen A. Crisis in 'a normal bad year': Spaces of humanitarian emergency, the Integrated Food Security Phase Classification scale and the Somali famine of 2011. Environment and Planning A: Economy and Space. 2016;48(1):40-57.
20. United States Government. Homeland Security Advisory System - Presidential Directive-3 In: Security H, editor. 2002.
21. Inter-Agency Standing Committee. Humanitarian System-Wide Emergency Activation: definition and procedures. 2012.

22. World Food Programme. How WFP Classifies Crises and Why COVID-19 Is at the Top 2020 [updated April 14th 2020. Available from: https://www.wfpusa.org/articles/understanding-l3-emergencies/#.
23. Heymann DL, Chen L, Takemi K, Fidler DP, Tappero JW, Thomas MJ, et al. Global health security: the wider lessons from the west African Ebola virus disease epidemic. The Lancet. 2015;385(9980):1884-901.