

Action and Inaction: Comparing the World Health Organization's Response to H1N1 and Ebola

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ABSTRACT: The 2014 outbreak of Ebola has exposed the health realities faced by fragile states and fragile health systems. Just as fundamental to the current discussion is the perception of risk and action, as evidenced by public criticisms of the (slowness of the) international response. The event highlights the tensions between international governance systems and social understandings of disease. While the current outbreak first emerged in December 2013, WHO's declaration of Ebola as a Public Health Emergency of International Concern (PHEIC) occurred in August 2014. To understand this lag a contrast with the case of H1N1, which was declared a PHEIC swiftly after initial detection, is revealing. The decisions surrounding H1N1 were based upon conditions of novelty and geographic spread. For H1N1, global (over)reaction was criticised due to its perceived mildness. In contrast, Ebola is transmitted through close contact (i.e. limited geographic spread), and has been historically persistent within the region (i.e. not 'novel'); the disease therefore did not trigger the same PHEIC governance mechanisms. However, Ebola is underpinned by public fear and perceptions of global contagion. The international reaction to Ebola, and criticisms of that reaction, thereby reflect conflicting social perceptions of disease and structural disease governance mechanisms.

INTRODUCTION

In the weeks building up to the declaration of the 2014/5 Ebola Virus Fever outbreak in West Africa, global health agencies came under criticism for not acting decisively to control the disease. The actions of the World Health Organization were particularly singled out; it was asserted that the WHO had not properly fulfilled its mandate in its management of this event (Gulland 2015). Where the WHO should act as a world leader, it was argued, it instead lagged behind the global discussion. These criticisms were underpinned by the wider public and political perception of the disease. The case highlights the tensions between international governance systems and social understandings of disease. Public fears intersect with global governance structures in important ways. Particularly, what is institutionally described as a global 'risk' – in terms of infectious disease, through the application of the International Health Regulations – can differ from what is publicly perceived as threatening. One of the key questions surrounding the Ebola outbreak has been 'why did the WHO not act more quickly?' However, it is more useful to reframe the problem as 'when does the WHO act?' The global surveillance and governance structures surrounding infectious diseases reflect institutional orientations towards likely future global threats. This is evident in understanding what is, or what is not, declared by the WHO to constitute a Public Health Emergency of International Concern (PHEIC).

Following the detection of the epidemic in March 2014, WHO's declaration of Ebola as a PHEIC occurred in August (WHO 2014). This gap between the first incidence of the disease and the highest mobilisation of the WHO's international coordination role underpinned much of the early criticism of the institution. To understand this lag, a contrast with the case of H1N1, which was declared a PHEIC almost immediately after initial detection, is revealing. This paper utilises a comparative case study

approach to contrast the World Health Organization's governance of H1N1 and Ebola. It examines the institutional structures that surround the global governance of infectious disease risk, and how these structures underpinned the action surrounding both diseases. The paper demonstrates that key characteristics of the events either elicited the WHO's quick response (H1N1) or comparatively delayed response (Ebola). The WHO's decisions surrounding H1N1 were based upon the novelty of the virus and potential for swift geographic spread. For H1N1, the WHO's (over)reaction was later criticised due to the perceived mildness of the event (Flynn 2010). In contrast, Ebola is transmitted through close contact (i.e. limited geographic spread), and has been historically persistent within the region (i.e. not 'novel', though the epidemiology of the current outbreak is unusual). Ebola therefore did not immediately trigger the same PHEIC governance mechanisms within the WHO. However, the Ebola epidemic is surrounded by public fear and perceptions of global contagion, and a PHEIC was declared by the WHO following the public outcry surrounding the disease. The issue of action or inaction is therefore underpinned by both institutional structures of risk governance and the wider socio-political perception of threat. The WHO's early reaction to Ebola, and criticisms of that reaction, reflect both conflicting social perceptions of disease and structural disease governance mechanisms.

THE INTERNATIONAL HEALTH REGULATIONS

The 2005 International Health Regulations (IHR) are a legally binding agreement that was developed by the World Health Assembly of the World Health Organization to control potential global health threats. The IHR codifies the roles and responsibilities of state, corporate, and other actors in identifying and managing a Public Health Emergency of International Concern (PHEIC) (WHO 2008). This includes explicating surveillance mechanisms for WHO member states and health networks, and detailing when and how reporting of health events to the WHO may take place (Baker and Fidler 2008; Katz et al. 2010). The IHR also serves as a classificatory mechanism, defining the nature of international health events (PHEICs) and thereby specifying matters of global concern. Amplified by the contemporary global coverage of surveillance, there are innumerable health threats that could potentially come under the global health gaze. Studies of global health priorities clearly show that institutional priority setting does not link to incidence of disease but rather the political salience of the problem, calculations of risk, and perceptions of (in)ability to combat particular issues. This is reflected in what is declared a PHEIC.

Officially, the declaration of the PHEIC is underpinned by two key factors. The term Public Health Emergency of International Concern is defined in the IHR (2005) as "an extraordinary event" which is determined "to constitute a public health risk to other States through the international spread of disease" and "to potentially require a coordinated international response" (WHO 2008: 9). A PHEIC decision will be based upon the following: the seriousness of the public health impact of the event; the unusual or unexpected nature of the event; the potential for the event to spread internationally, and/or; the risk that restrictions to travel or trade may result because of the event (WHO 2005). These conditions are necessarily broad in scope and provide the WHO Director-General with wide discretionary powers in declaring a PHEIC. Particularly given this definitional breadth, the Ebola outbreak may potentially have been declared a PHEIC early on in this process. However, the historical foundations of the IHR, as well as sites of particular institutional interest, determine the way in which this instrument is mobilised.

The comparison between the declaration of the PHEIC around H1N1 (almost immediately after the confirmation of the novel virus) and the 2014/5 Ebola outbreak (declaring a PHEIC in August 2014, following in initial country reporting to the WHO in March 2014) demonstrated the form and function of the PHEIC, rather than the WHO's 'neglect' of the Ebola outbreak.

RISK

Risk is an underlying principle in the construction and application of both the International Health Regulations and the specific designations of a Public Health Emergency of International Concern. The IHR stipulates the monitoring and reaction to global public health risk, and the PHEIC declaration designates a specific event as risky.

Risk is fundamental to both the institutional management and the public discourse surrounding infectious disease. Risks are particularly difficult to manage due to their future-oriented nature. An event is underpinned by 'risk' where there is the potential for harm or disruption (Bauman 1999; Beck 1999; Lupton 1999). This potentiality means that risk-managing institutions must make their decisions based upon past experience (reinforcing aspects of historical path dependency) in combination with often anecdotal scientific data (Funtowicz and Ravetz 1993; Nowotny et al. 2001). This is clearly evidenced in the case of Ebola, where precision surrounding the degree of both existing and potential spread (given the issues with tracking the sick and deceased in Guinea at the start of the outbreak) was difficult to ascertain. Within this context, the WHO is charged with the task of managing the risk of disease. The IHR – together with other frameworks such as the Pandemic Influenza Preparedness Plan (2011) and the Emergency Response Framework (2013) – exist to assist the organisation in detecting and controlling health risks. The designation of a PHEIC rests upon the idea of risk, as a PHEIC is by definition a “public health risk to other States”, and therefore is also surrounded by the issues inherent in risk management. While the manifestation of risks are by definition unknown, institution must create objective means of measurement and management of them.

Simultaneously, public discourses of infectious disease also focus on the problem of risk. Here, risk tends to be understood in terms of the potential for contagion, where an exotic and deadly disease enters new social spaces and transgresses borders and populations (Bashford and Strange 2003; Foege 1991). Public accounts of risk are fundamentally problems of perception and representation (Herzlich and Pierret 1987). If a disease is understood as being able to transgress social boundaries, it is imbued with risk (Douglas and Wildavsky 1983; Lash 2005). This perception of risk can depart from biomedical and institutional accounts, due to the different ways in which risk is appraised.

Public and institutional conceptions of risk can differ in important ways. Public understandings concentrate upon (potentially shifting) perceptions of severity and threat. The institutional management of risk relies upon pre-ordained risk-measurement strategies (here, the application of the IHR) which constrain the way in which risks can be labelled and managed. As the comparison between Ebola and H1N1 shows, WHO's procedures tends to concentrate upon risk as an outcome of novelty, transmissibility and geographic spread. In contrast, public accounts see Ebola as a severe and risky disease, in comparison to 'the flu' a known and (perceived to be) mild event.

DISEASES HIGHLIGHTED BY THE IHR

The International Health Regulations (2005) were formed as an update to the IHR (1969), a more limited set of regulations that concentrated upon a few diseases (cholera, plague, yellow fever, smallpox, relapsing fever and typhus) and the regulation of travel and trade around the management of these diseases (WHO 1989).

The contemporary application of the IHR also demonstrates the focus on certain forms of health emergency. The scope of the IHR is broad – potential PHEICs include industrial accidents, environmental disasters and contagion (WHO 2008). However, since the implementation of the 2005 IHR, the WHO has only declared a PHEIC in three instances: the 2009/10 H1N1 Pandemic, the 2014 re-emergence of polio, and now the 2014/5 outbreak of Ebola Virus Fever. The monitoring stipulated by

the IHR and the application of the Regulations both clearly privilege acute infectious disease events. By focusing surveillance resources upon emerging and re-emerging disease, WHO management (through the enactment of the IHR) centres upon these events.

The WHO's focus on these diseases can be seen as a result of the organisation's historical relationship with infectious disease and the context under which the 2005 IHR was written. The revised IHR was a result, in large part of the experience with the SARS outbreak and the understanding that similar outbreaks of highly pathogenic and highly transmissible disease can lead to worldwide devastation (Fidler 2004). Produced under these conditions, the IHR implicitly focuses upon threats that are similar in nature. From this, and understood through the prism of the experience with SARS (as well as H5N1), it makes sense that in 2009 H1N1 became the first disease event to be declared a PHEIC. H1N1 exhibits all of the characteristics specified in the current focus of global infectious disease control – it was a novel and highly transmissible influenza strain. These characteristics help to understand why H1N1 was declared a PHEIC so quickly after initial detection, given the ability of the disease to spread quickly across global borders and the novelty (and therefore unpredictability and increased risk) of the strain.

Novel influenza, in addition to a short list of other diseases, is a case which necessitates automatic reporting by member states to the WHO. Thus “[u]nder the IHR (2005), all cases of the following four diseases must be automatically notified to WHO: smallpox; poliomyelitis due to wild-type poliovirus; SARS; and cases of human influenza caused by a new subtype” (WHO 2008). As this quote suggests, despite the broadly encompassing language of the IHR, the legislation still focuses more heavily on a narrow range of diseases. This list of diseases mirrors aspects of the 1969 IHR. More dominantly, it reflects the WHO's institutional history with infectious disease management. In particular, infectious diseases which had been the highlight of the WHO's institutional history (Beigeder 1998; Fee et al. 2008) – smallpox and polio – are combined with disease of current global security concern (Heyman 2003; King 2002) – the highly transmissible respiratory illnesses of SARS and influenza – in dictating particular sites of surveillance.

The case of Ebola runs contrary to this focus. Simultaneous to the rise of the 2014/5 outbreak, the WHO's focus was diverted onto other outbreaks – crucially the MERS outbreak in the Middle East – which exhibit the characteristics more typical of the envisaged PHEIC. This factor, in addition to the other characteristics described below, may have reinforced the WHO's lack of focus on Ebola.

In its orientation towards the current IHR, the WHO exhibits some measure of historical path dependency (see Abeysinghe 2012). Though the IHR is written in purposefully broad terms, areas of specific interest and concern are clearly situated around the WHO's historical successes in infectious disease control (smallpox and polio) as well as the immediate global health concerns that existed at the time of the writing of the revisions (mobile respiratory illnesses). This may have structured the institutional response to the outbreak, since Ebola was not characterised with the attributes that define these more focused-upon cases.

NOVELTY AND SEVERITY

The idea of novelty and unpredictability is central to both the institutional and public understanding of risk. Risks are uncertain and unknown. At the institutional level, diseases which are not well-understood epidemiologically or biologically are highlighted as risky. This was one of the reasons why H1N1 was initially and quickly designated as a threat. In handling H1N1, the WHO emphasised the novelty of the viral strain. The idea of novelty was linked with unpredictability (around the impact of the virus), immunological susceptibility (unique antigenic properties mean that there is no pre-existing built immunity) and potential severity (given the unknown virological properties). Thus, in

characterising the risk posed by H1N1, the WHO emphasised novelty as a key question. It was suggested that “[n]ew diseases are, by definition, poorly understood. Influenza viruses are notorious for their rapid and unpredictable behaviour” (Chan, 29/04/09). Due to the novelty of the H1N1 virus, scientific evidence surrounding it was scant and slowly emerging, especially in the early stages of the events. This scientific uncertainty in part framed the WHO’s reactions.

In contrast, Ebola outbreaks – though at much smaller scale and in non-urban areas – have been persistent since the initial identification of the disease in 1976. Compared to influenza, the virus is generally stable. Given these factors, and the clear importance of issues of novelty in understanding risk for the WHO, it is unsurprising that the risk posed by the outbreak was not immediately considered to constitute a PHEIC by the organisation. The defining characteristics in understanding the scale of the 2014/5 Ebola outbreak are socio-political, rather than features of the virus itself. Thus, it was the structural (weak health systems, fragile and emergent political institutions) the geographical location (located in states exhibiting the structural issues, movement into urban areas) and socio-cultural aspects (issues surrounding the interaction between biomedical reactions and local populations and knowledges) of most-affected areas that underpinned the spread of the disease.

The lack of efficacious medical responses to Ebola reflects not the newness of the disease, but the fact that this was not a research and funding priority before the current outbreak (evident in the swift development of vaccines and other experimental therapies in response to the outbreak, showing that this is possible given the political will). Indeed, Ebola has been variably listed as a Neglected Tropical Disease (Rubin 2005; McNeil et al. 2012), demonstrating both an acknowledged persistence – but also crucially a political neglect – of the virus. In describing a PHEIC, the IHR focuses upon decontextualized attributes of the disease agent. As the Ebola outbreak has shown, the socio-political context is fundamental to the nature and scale of a health emergency. Again, this may pose a site of difficulty in swiftly conceptualising Ebola as a PHEIC.

Suggestions that the WHO’s quick PHEIC declaration to H1N1 was an ‘over-reaction’, while the declaration of Ebola was ‘too slow’ also mirrors the contrasting wider public discourse surrounding the two diseases. While H1N1 was a novel infectious agent in the scientific sense, and from the institutional perspective, this did not mirror the public account. Instead, understandings of ‘the flu’ as a mild and common-place occurrence (through experiences with seasonal influenza, and also in part in the confusion between influenza and flu-like illnesses) underpinned suggestions that the WHO had over-reacted in that case (Jefferson 2010; Wodarg 2010). In contrast, since the 1970s Ebola has captured the public imagination in the West. The disease is clearly ‘extraordinary’ in the public understanding of the term. The symptomology and progression of the disease is clearly severe. Ebola is not novel in the scientific sense (though the political context surrounding the 2014/5 outbreak has been) but is novel in terms of the global social experience of disease. In comparison, while influenza is commonplace in terms of public understanding, H1N1 was a clearly novel strain from an epidemiological perspective. In focusing upon the novelty of the disease-causing agent, rather than the novelty of the wider socio-political circumstances the IHR triggering and PHEIC declaration around Ebola lagged behind.

In addition to ideas of novelty, the understanding of severity also differs between the institutional and wider public accounts. Social definitions of risk tend to include the concept of severity. Disease with severe manifestations – exhibiting life-threatening or brutal symptoms and/or causing high mortality rates – are implicitly understood as high in risk. Ebola is one such disease; the clinical manifestations of Ebola are severe and the current outbreak has been accompanied with a particularly high mortality rate. Due to representation of the disease in the West prior to the current outbreak (Joffe and Haarhoff 2002; Ungar 1998), and the linking with the potential for bioterrorism (Hewlett and Hewlett

2007), Ebola holds a strong place in the social imagination not just in affected regions but also across the globe.

In contrast, the case of H1N1 shows that severity of disease (in terms of serious clinical manifestations) is not necessarily inherent in the declaration of a PHEIC. H1N1 was labelled a pandemic event despite claims that the disease was mild in nature. For example, in describing the impact of H1N1 a few weeks before the pandemic declaration it was acknowledged by Keiji Fukuda (then Special Advisor for Pandemic Influenza) that:

In terms of the illness itself, in the people who are developing generally milder illness, this is similar to the kinds of influenza-like illnesses that we see, so this is typically people developing fever, cough, body aches, headaches, and this is generally in keeping with what the milder spectrum of illness is. (Fukuda, 05/05/09)

Clinical severity is not a necessary characteristic of a PHEIC, where other factors (the potential impact of trade and travel, the potential for geographic spread) carry more weight within the definition. While the emerging situation in West Africa was clearly severe, it appeared to be tightly bounded geographically in addition to being caused by a well-known disease agent.

GEOGRAPHY AND GLOBALITY

Understandings of the negative consequences of globalisation, with the attendant rapid movement of good and populations, underpins the socio-political framing of contemporary infectious disease events. Fundamental to these perceptions are what King (2002) refers to as the 'emerging disease worldview'. This worldview has arisen in the West and narrates the link between the developed and the developing world through the experience of infectious disease. Here, the subjective perception of globalised interdependence is linked with moral narratives locating disease in the Third World to construct a discourse which suggests that the West is increasingly susceptible to infectious disease threats which originated in developing countries. In addition to this, changed changing relation of governance under globalisation have led to a restructuring of the role of in influence of the WHO. The WHO's structures changed as a reaction to the appearance of new players in the global health arena, where the WHO presents itself as inhibiting a coordination, rather than leadership, role (Kickbusch & de Leeuw, 1999; Maguire & Hardy, 2006; Szlezak et al., 2010; Taylor, 2005). Thus, the idea of globality is evident both in terms of the socio-political understanding of infectious disease and the nature of disease governance systems and the WHO.

The WHO's institutional definitions of the risk of a PHEIC are also strongly bound to the concept of globality and global spread. The IHRs resolve situations where there is potential for global impact and the (potential) disruption of global trade and movement. The IHR was revised in part on the understanding that it is to "strengthen the collective defences against the multiple and varied public health risks that today's globalized world is facing and which have the potential to be rapidly spread through expanding travel and trade." The idea of global spread is therefore crucial to the declaration of a PHEIC, and as the term suggests, the event must be of clear 'international concern'.

The potential for global spread is clear in relation to highly transmissible respiratory illnesses such as influenza. Given this, it is understandable that H1N1 quickly fit the criteria of a PHEIC. H1N1 was shown to have been spreading rapidly; influenza is a fast moving illness and can easily be carried across borders through air travel. These facts means that respiratory illnesses are more likely to lead to global-level pandemic threats.

In contrast, Ebola is transmitted through close contact with a symptomatic patient. The long incubation period means that border control becomes more difficult. This has been seen in the few cases where Ebola patients have only been identified following their travel into Europe and the United States. Further, the nature of the illness and the affected population means that international spread is far less likely with Ebola than with a respiratory disease. This is despite the UN Security Council calls, as well as (for example) the assertion made by US President Obama, pronouncing that Ebola represented a major national security threat priority (Lawrence et al. 2014), as well as public fears in the EU and US that Ebola would become a global outbreak.

The eventual pronouncement of Ebola as a PHEIC by the WHO moved from the traditional emphasis from the first part of the PHEIC definition of constituting “a public health risk to other States through the international spread of disease” to also take account of the second part of the definition, to declare threat which “potentially require a coordinated international response”. Given this historical and institutional context in which the WHO was operating, this was a significant shift. The change was particularly interesting given that the outbreak had in fact been declared a Grade 3 (highest level) emergency several weeks prior to the declaration of PHEIC. As an application of the Emergency Response Framework, this seemed suitable. The Grade 3 Emergency declaration was taken at the point where the spread across West African countries and number of confirmed cases (see Briand et al. 2014) revealed the scale of the outbreak. The eventual declaration of the PHEIC therefore highlights the imprecision of that instrument in identifying risk.

CONCLUSION

Public problematisations intersect with global governance structures in potentially contradictory ways. The idea of global (in)action is particularly bound by tensions between infectious disease governance structures and wider perceptions of risk. Particularly, what is institutionally described as a ‘risk’ – for example through the application of the IHRs – can differ from what is more widely understood as threatening.

Contestation surrounding action and inaction reflect the disjuncture between different ways of understanding risk. In particular, areas of contestation and critique often reflects mismatches between public/political perceptions of risk and institutional/governance structures of priority setting. Social understandings of risk rest upon more sociological factors, such as perceptions of threat (of Western populations) and contagion. In contrast, the WHO institutional measurement of risk relies upon the criteria set out by the IHR.

Risk, for the WHO, reflects a range of variables to be measured and criteria to be met. Particularly central to the IHR is the issue of geographical spread and novelty of disease. This reflects the WHO’s institutional history dealing with epidemic disease, current areas of global health focus and the particular context in which the IHR was produced.

The contention that the WHO’s PHEIC declaration of Ebola was too slow serves to highlight the disjuncture between the institutional and wider public understanding of disease risk. In reflecting upon this experience, the organisation may choose in the future to concentrate further on the second half of the definition of PHEIC – where an event requires a coordinated international response – as opposed to what appears to be the current focus on the criterion of international spread. Conversely, and particularly in light of other mechanisms response (such as the Emergency Response Framework), the application of the IHR could be more tightly defined to emphasise its use in terms of specific types of disease events. In either case, the controversy shows that the broad nature of the IHR renders it in many ways an ineffective tool and opens the WHO up for critique.

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