

# Haggling over viruses: the downside risks of securitizing infectious disease

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This article analyses how the ‘securitization’ of highly pathogenic avian influenza (H5N1) contributed to the rise of a protracted international virus-sharing dispute between developing and developed countries. As fear about the threat of a possible human H5N1 pandemic spread across the world, many governments scrambled to stockpile anti-viral medications and vaccines, albeit in a context where there was insufficient global supply to meet such a rapid surge in demand. Realizing that they were the likely ‘losers’ in this international race, some developing countries began to openly question the benefits of maintaining existing forms of international health cooperation, especially the common practice of sharing national virus samples with the rest of the international community. Given that such virus samples were also crucial to the high-level pandemic preparedness efforts of the West, the Indonesian government in particular felt emboldened to use international access to its H5N1 virus samples as a diplomatic ‘bargaining chip’ for negotiating better access to vaccines and other benefits for developing countries. The securitized global response to H5N1 thus ended up unexpectedly entangling the long-standing international virus-sharing mechanism within a wider set of political disputes, as well as prompting governments to subject existing virus-sharing arrangements to much narrower calculations of national interest. In the years ahead, those risks to international health cooperation must be balanced with the policy attractions of the global health security agenda.

**Keywords** H5N1, health security, securitization, sovereignty, virus sharing

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## KEY MESSAGES

- Indonesia’s decision in December 2006 to cease sharing its H5N1 virus samples with the international public health community has prompted widespread consternation in the West, as well as eliciting considerable support from many developing countries.
- The resulting international virus-sharing controversy has persisted for 4 years and has since become enmeshed in a broader set of complex legal, political and economic issues that make the disagreement very difficult to resolve.
- The securitization of highly pathogenic avian flu contributed to the emergence of this international virus-sharing dispute, showing that a securitized response to infectious disease management can also have downside risks in terms of complicating international health cooperation.

## Introduction

Amidst pressing international concern that the world was on the cusp of a renewed human influenza pandemic, the Indonesian government took the controversial decision in December 2006 to cease sharing its H5N1 virus samples with the international community. It did so after discovering that the virus samples it had been forwarding freely to the World Health Organization (WHO) through the long-standing Global Influenza Surveillance Network (GISN) were being passed on to pharmaceutical companies in the West, where they were being used to develop lucrative new vaccines. Indonesia pointed out that this violated the WHO's own guidelines according to which virus samples should not be distributed outside of the WHO network without prior consent of originating countries (WHO 2005b: 2). Western pharmaceutical companies subsequently also offered those novel vaccines back to the Indonesian government at commercial rates, which Indonesian authorities deemed unaffordable in light of the country's large population of more than 220 million people.

Indonesia's decision to stop this 'exploitative' process by withholding its virus samples split opinion within the international community. Many governments and medical researchers in the West expressed consternation and even anger at a decision they claim is recklessly endangering international public health and global health security. Yet Indonesia's position has also won considerable support, especially amongst many developing countries who feel similarly unable to afford vaccines at market rates. The resulting international dispute over virus sharing has now lasted for 4 years, and marks one of the most substantial setbacks in international health cooperation of the past decade.

The precise causes of this virus-sharing controversy are difficult to pin down, not least because both sides in the dispute have engaged in a fair bit of diplomatic mud-slinging regarding each other's motives. At the time, the Indonesian health minister Siti Fadilah Supari levied outlandish accusations at the United States government, including that the latter was ciphering off virus samples in order to develop biological weapons at Las Alamos National Laboratories (Supari 2008: 19), a charge she reiterated in more general and country non-specific terms as recently as March 2009 when she stated publicly that 'I'm truly afraid the world will use our viruses or DNAs to create a mass biological weapon that may be used to attack us' (*Jakarta Globe* 2009). During that same period, some policy-maker in the West similarly sought to tarnish the reputation of the Indonesian health minister, with opinion pieces written in influential newspapers and internet blogs disparaging of her attempts to locate Indonesia's health policies within wider anti-Western struggles, and openly speculating about more selfish or other political reasons for her position on virus sharing (Holbrooke and Garrett 2008; Leavitt 2008).

Nor was the decision to withhold virus samples from the international public health community uncontroversial within Indonesia itself. Certainly the position of the health minister was endorsed at the time by the country's president, and throughout her term of office (which ended in 2009) Supari remained a popular political figure frequently featured in Indonesian lifestyle magazines. Yet dissenting voices within

Indonesia were also not difficult to find. Interviews carried out with Indonesian officials by Paul Forster during 2008 revealed that some thought she was mostly using the issue of virus sharing as a way of deflecting attention from other political failures. Others cited the wider popularity within Indonesian politics of standing up to the West, and also noted that her line would appeal to Islamist and nationalist parties. Others still indicated that her motivation ultimately remained a mystery and that there may also be other psychological factors involved (Forster 2009: 47–49). Those interviewees further pointed to tensions within the Indonesian Ministry of Health, where the virus-sharing dispute was seen to be distracting from other crucial items of business and complicating relations with the WHO (Forster 2009: 48). The course of events leading up to the international virus-sharing dispute is therefore complex, and is also likely to include a range of factors associated with Indonesian domestic politics. Even with the benefit of hindsight, the emergence of the international virus-sharing dispute cannot be readily reduced to a single factor.

Yet one important aspect of that virus-sharing controversy that analysts have so far overlooked is the contributing role played by the initial 'securitization' of highly pathogenic avian influenza. That securitized international response to H5N1 had two fateful consequences. First, the considerable fear of an imminent human pandemic provoked a competitive rush amongst governments around the world (including Indonesia) to secure access to pharmacological counter-measures for reducing the spread of H5N1. In a global context where there were insufficient global supplies to meet that sudden surge in demand, it did not take long for some developing countries to become acutely aware that a profound conflict of interest exists between developed and developing countries when it comes to maintaining existing forms of international health cooperation. The international virus-sharing mechanism may work well for developed countries that possess their own pharmaceutical manufacturing base, but the material benefits accruing from such cooperation for developing countries are far less evident.

Second, the high-level concern about H5N1 in the West suddenly also rendered the viruses circulating in Indonesia's territorial borders very 'valuable'. At the time the West needed unencumbered and legal access to samples of those viruses in order to track the global evolution of the virus and to develop pharmacological treatments against the threat. Without such access, the West would not be able to maintain a set of comprehensive and up-to-date medical interventions to protect their populations—even if they had the manufacturing capacity to do so (unless Western countries were able to obtain such samples through channels other than the GISN). Amidst the occasionally frenzied efforts of the West to shore up its defences against the impending H5N1 threat, and the political pressure it consequently put on developing countries where human cases of H5N1 infection were already occurring, the Indonesian government in particular came to realize that it now controlled access to what was in fact a very precious 'resource'—and one which it, in turn, could deploy as a diplomatic bargaining chip on the international stage for negotiating greater access to vaccines and other benefits for developing countries.

Both effects of the securitization of H5N1 have ultimately made the virus-sharing dispute more difficult to resolve: the first has embroiled the long-standing international virus-sharing mechanism in a much wider set of North–South disputes, whilst the second has rendered international health cooperation a matter of more narrow and calculated national interest. A key lesson to emerge from the international virus-sharing controversy is therefore that a securitized response to infectious disease management can also have unanticipated consequences in terms of further complicating international health cooperation. In the years ahead, those downside risks associated with a securitized response to global public health will need to be balanced with the evident benefits of the global health security agenda, especially in terms of mobilizing political leadership and resources for the management of emerging and re-emerging infectious diseases.

## Method

This article undertakes a case study analysis of the international response to the emergence of human infections with highly pathogenic avian influenza A viruses of the subtype H5N1 (hereafter simply H5N1). Specifically, the article analyses how the securitized nature of that global response to H5N1 contributed in recent years to the rise of a protracted international virus-sharing dispute between developed and developing countries. The study draws upon securitization theory as its conceptual framework, which was initially developed in the non-medical disciplines of International Relations and Critical Security Studies. Securitization theory is principally concerned with discerning how issues are responded to differently in national and international policy circles when they become widely perceived or ‘framed’ as pressing existential threats. Crucially, and as a constructivist social theory, securitization theory does not try to establish whether any particular issue ‘really’ constitutes a security threat or not; instead it mostly comes into play once an issue has already been securitized, and forms a useful conceptual tool for studying the political consequences of such a securitization process. Based on an extensive analysis of a wide range of different international issues that have become securitized over the past two decades, securitization theory has been able to identify a set of policy advantages and drawbacks that can accrue once issues are securitized.

Taking an interdisciplinary approach and bringing securitization theory to bear directly on the international response to highly pathogenic avian influenza is useful in that H5N1 too became widely perceived as constituting such a pressing existential threat in international policy circles (especially throughout 2005 and 2006). Indeed, H5N1 marks one of the most prominent international health issues to have become securitized over the past decade. H5N1 can thus serve as a pertinent case study for tracing how the effects of securitization unfold specifically in the field of global health. The following study analyses those political consequences in relation to the international virus-sharing dispute, and shows those effects to be consistent with the wider trends witnessed in a range of other securitization processes that have already occurred outside of the health sector.

The empirical material for this study on the international politics of virus sharing was drawn from a variety of different sources. Those sources include more than a dozen semi-structured, one-to-one background interviews carried out with key participants in the international virus-sharing dispute. The article also took into account a range of policy papers, background papers, working papers and articles on virus sharing generated by international organizations, governments, think tanks and newspapers (secondary data), as well as scholarly articles and books published on the virus-sharing controversy (tertiary data). Those sources were located through library searches, scholarly databases in public health and international relations, internet searches using a commercial search and contacts in the international academic and policy communities.

## Results and discussion

### The securitization of H5N1

What exactly does it mean to say that an issue has become ‘securitized’? Scholars of international politics succinctly define securitization as the political process through which an issue is ‘presented as an existential threat requiring emergency measures and justifying actions outside the normal bounds of political procedure’ (Buzan *et al.* 1998: 23–24). The decisive factor in identifying a securitization process is therefore not whether the word ‘security’ is directly invoked, but rather whether an issue is presented according to the aforementioned logic of an existential threat (Buzan *et al.* 1998: 33). Such existential threats can be military in nature, as is frequently the case when one state declares war on another. Yet such securitization processes can also unfold in response to issues that are essentially non-military in character. In fact one of the most notable features of the international security agenda over the past decade is the growing number of broader social issues that have been discussed as pressing existential threats, ranging from climate change and the ‘war’ on drugs, through to migration and the progressive merging of security and development in many parts of the world. As a rapidly evolving literature now documents, infectious diseases have become the latest in a long line of non-military issues to be securitized in such a manner (Elbe 2006; McInnes and Lee 2006; Ingram 2007; Kelle 2007; Davies 2008; Fidler and Gostin 2008; Leboeuf and Broughton 2008; Scoones and Forster 2008).

In the case of H5N1, the manifestations of that securitization process are already too numerous to recount in full; but a few examples will suffice to illustrate the point. Writing in the *New York Times* in 2005, two senators from the US Senate Foreign Relations Committee warned their readers that we usually think about national security threats in terms of nuclear proliferation, rogue states and terrorism, but that ‘another kind of threat lurks beyond our shores, one from nature, not humans – an avian flu pandemic. An outbreak could cause millions of deaths, destabilize Southeast Asia (its likely place of origin), and threaten the security of governments around the world’ (*New York Times* 2005). One of the two Senators sounding that alarm was—at the time—a junior Democrat from the state of Illinois, who had just been elected to Senate the previous year, and who would later go on to become

President of the United States of America, Barak Obama. In his view, H5N1 was not just another infectious disease to be dealt with by routine international public health measures, but a new and grave global threat requiring a much more urgent policy response. That same year, across the Atlantic, the Civil Contingency Secretariat in the United Kingdom echoed that avian flu is 'as serious a threat as terrorism' (Lean 2005).

In 2006 the National Security Strategy of the United States (Office of the President of the United States 2006) then directly acknowledged the threat posed by 'public health challenges like pandemics (HIV/AIDS, avian influenza) that recognize no borders'. The 2006 World Economic Forum held in Davos, Switzerland, similarly identified H5N1 as the primary threat preoccupying global business and political leaders. Noting limited supplies of anti-viral drugs, its report warned that in the worst case scenario there could even be 'rioting to gain access to scarce supplies of anti-virals and vaccines; a collapse of public order; partial de-urbanization as people flee population centres; the extinction of trust in governments; decimation of specific human skill sets; and forced, large-scale migration, associated with the further collapse of already weak states' (World Economic Forum 2006: 9). In retrospect, 2005 and 2006 thus emerge as the 2 years in which the securitization of highly pathogenic avian influenza reached its highest level, in terms of H5N1 being widely perceived as a pressing existential threat demanding an urgent and sustained international response.

That concern with the acute existential threat posed by H5N1 would continue well into 2007 and 2008, although there is some evidence that the threat perception began to decline in the course of 2008, and attention also rapidly shifted to the emergence of influenza A (H1N1) in the spring of 2009 (World Bank 2008). Yet in 2007 the WHO still referred to avian flu as 'the most feared security threat' (WHO 2007: 45), whilst in 2008 pandemic threats remained salient enough to be officially incorporated into the United Kingdom's National Security Strategy, both because of their ability to directly affect the country and because they could potentially undermine international stability (Cabinet Office 2008: 3). That same year the World Bank warned in one of its reports that even though the incidence of human cases of infection was declining in many countries, 'the virus remains a substantial threat to global public health security' (World Bank 2008: 10).

It is possible, then, to trace how highly pathogenic avian influenza has become 'securitized' over the past 5 years. During this time, H5N1 was elevated from a technical public health issue that could be dealt with through the routine procedures of public health institutions and scientific experts, to something perceived as posing a much more existential threat to populations, economic systems and even political structures. The international response to the threat of H5N1, in short, emerges as a classic example of a securitization process, and that also makes it an ideal case study for analysing the kinds of policy advantages and drawbacks that accrue when issues become securitized specifically in the field of global health.

Turning first to the policy advantages, the securitization of H5N1 has undoubtedly raised political awareness about the virus around the world, and has persuaded policy-makers to formulate a range of pandemic preparedness plans. A survey

carried out by the United Nations System Influenza Coordination Unit suggests that over 140 countries have now developed national pandemic preparedness plans, although their extent varies significantly between countries and many of the plans still remain untested in practice (World Bank 2008: 52). The threat associated with H5N1 has also freed up resources to address the issue, with US\$2.7 billion having been pledged globally (US\$1.5 billion disbursed) for pandemic preparedness efforts (World Bank 2008: 8). A 2008 World Bank report thus found that 'the threat posed over the last 5 years has mobilized an unprecedented coming together of the animal health, human health, disaster preparedness and communication sectors to work in a cross discipline, cross sector and cross boundary way' (World Bank 2008: 8). Moreover, such preparations were undoubtedly helpful in making governments feel more prepared when dealing with the outbreak of new human infections with influenza A (H1N1) in the course of 2009. All of those developments also confirm a core insight witnessed in relation to a range of other securitization processes, namely that they can have policy benefits in terms of mobilizing resources and garnering greater political attention for important issues (Buzan *et al.* 1998: 29).

Those benefits notwithstanding, however, international efforts to prepare the world for a possible human H5N1 pandemic have also encountered at least one very significant setback when the Indonesian government decided unexpectedly at the end of 2006 that it would no longer share its H5N1 virus samples with the rest of the international community. That move threw a sizeable spanner into the global pandemic preparedness machinery because Indonesia was, in many ways, at the 'forefront' of a possible H5N1 pandemic, reporting the highest numbers of human cases and deaths of H5N1 infection up to that point in time. Without access to the viruses circulating within Indonesia's territorial borders, it was no longer possible for the international public health community to acquire comprehensive surveillance data about how the virus was evolving, nor to develop stockpiles of up-to-date candidate vaccines based on the more virulent Indonesian virus strands.

With emotions running high on both sides, the stand-off between the West and Indonesia (backed vocally by many other developing countries such as Thailand, Brazil, India as well as the Third World Network) has become known in the international public health community as the 'virus-sharing controversy'. That dispute has now lasted for 4 years and, despite some limited progress being made, fundamental disagreements persist amongst the core parties in this dispute. As we shall see below, the securitized response to H5N1 contributed to that critical setback in international public health cooperation in at least two ways, and in a manner that is consistent with the wider effects of securitization processes previously witnessed in other policy areas and sectors outside the domain of global health.

### **The international scramble for anti-virals and vaccines**

One effect of securitization processes observed more generally is that when issues become securitized, governments often resort to emergency measures and engage in 'extraordinary defensive moves' in order to meet that perceived threat

(Buzan *et al.* 1998: 204). That was certainly the case in relation to H5N1 as well. As bird flu came to be perceived as a pressing global security threat, many governments around the world embarked upon a frenzied race to acquire special medical counter-measures to meet this impending threat.

In the case of H5N1 there are actually many different ways in which governments could respond to a possible pandemic, including a range of non-pharmacological interventions such as isolation, quarantine and contact tracing, through to traveller screening, and implementing social distancing measures that minimize public gatherings by closing schools and cancelling mass spectator events. In fact, when it comes to seasonal flu many developing countries do not routinely resort to medical countermeasures such as mass vaccination or prescribing anti-virals—an understandable public health strategy in light of competing budgetary pressures and a range of other health issues that also need to be urgently addressed.

Yet given the perceived level of the H5N1 threat, most governments rapidly concluded that confronting H5N1 required more than just the usual public health responses to communicable diseases, not least because the considerable international anxiety around H5N1 created immense domestic pressures for governments to be seen to be taking the strongest possible action to protect citizens against a pending pandemic. Many governments decided that in the event of a pandemic the best line of defence would be the extensive use of pharmacological interventions like anti-virals and new vaccines. Manufacturers of anti-virals like oseltamivir (brand name Tamiflu) claim that the drug can be used both to treat those infected with H5N1 (if taken within 48 hours of the onset of symptoms) and as a prophylactic given to those who have been in contact with people who have been infected. In addition to anti-virals, a 2005 report by the WHO also observed that ‘vaccines are universally regarded as the most important medical intervention for preventing influenza and reducing its health consequences during a pandemic’ (WHO 2005a: 45). Amongst the considerable anxiety that a human H5N1 pandemic was imminent, anti-virals and vaccines thus quickly became seen as the ‘magic bullet’ or ‘gold standard’ for countries to defend themselves against the looming threat. Not surprisingly, the serious concern about the threat posed by H5N1 ended up stimulating immense international demand for those pharmacological products, not least because many governments around the world felt that the only way to adequately protect their populations was to take the extraordinary step of pro-actively stockpiling those medicines (especially anti-virals) to ensure availability of supplies for rapid dispersal in the event of a pandemic materializing.

Yet from a global public health perspective that intense focus on acquiring medical counter-measures also had one significant drawback: there was insufficient international manufacturing capacity to meet such a sudden surge in demand. As the 2005 WHO report went on to note, ‘the greatest problem is inadequate production capacity. Demand will unquestionably outstrip supply, particularly at the start of a pandemic’ (WHO 2005a: 46). Put differently, in the event of pandemic transmission of H5N1 there would inevitably be ‘winner’ and ‘loser’ populations. There would be those countries which would benefit from the protection afforded by pharmacological

interventions (or at least do so before the majority of other countries), and those that would have to settle for a more ‘low-tech’ approach probably associated with higher rates of morbidity and mortality.

Who were the likely loser populations going to be? It was not difficult for several developing countries to deduce that it was likely to be them, as they were facing a double disadvantage. First, manufacturing capacity—especially in terms of vaccines—was geographically concentrated in developed countries (Australia, Europe, Japan and North America) giving those countries a distinct advantage in terms of securing access to medicines for their populations (WHO 2005a: 47). Second, under market conditions where demand outstrips supply, the factor most likely to determine who would secure those treatments would be price; and here too it would be difficult for developing countries to compete with their wealthier counterparts.

Such global inequalities are certainly not new. Many developing countries have in fact long been aware of how the market dynamics of supply and demand have frequently not worked to their advantage in the area of public health. In many cases such free market conditions also do not exist in the first place, because the allocation of medical counter-measures are often agreed between governments and commercial companies through pre-purchase agreements long in advance of a pandemic actually materializing. Moreover, related concerns about global inequalities were already simmering amongst developing countries amidst the extensive changes negotiated to the International Health Regulations, the rise of new international surveillance mechanisms (Calain 2007), as well as the wider (and controversial) discussions about global health security (Aldis 2008: 373–4). Yet as the world was confronted with the spectre of an impending H5N1 pandemic, those inequalities crystallized in quite a stark manner, and in a way that could not be easily ignored by anyone who cared to take a closer look. If a pandemic was coming, there would be huge disparities in the medical defences available to countries around the world.

The realization of that profound inequality provoked deep frustrations about existing forms of global health governance. In fact, some developing countries were so dismayed at the possibility of having to confront an imminent pandemic without access to such medical interventions that they began to openly question the value of maintaining existing forms of international health cooperation which appeared to be mostly benefitting developed countries. Those developing country frustrations feature particularly prominently in the account of the virus-sharing dispute advanced by the Indonesian Health Minister Siti Supari in her book *It's Time for the World to Change* in which she describes her experiences and views on the international virus-sharing dispute (Supari 2008). Although the English translation of the book was officially withdrawn by her in February 2008 (due to what she claims were inaccuracies in the translation), the book nonetheless provides a useful insight into her overall reasoning and decision-making.<sup>1</sup>

In the book Supari recounts an early but formative encounter with this scarcity problem specifically in relation to anti-virals. When in 2005 she was finally able to find some resources from other government budgets to purchase Tamiflu for treating

early human cases of H5N1 infection that had emerged in Indonesia, she claims that she could not obtain supplies because the medicine was being pre-emptively stockpiled by Western countries, which at that point did not even have any human cases of infection with H5N1. She was concerned that it may have proved impossible for Indonesia to acquire the medicines at that time, had it not been for the willingness of Australia and Thailand to share their supplies with Indonesia (Supari 2008: 5–6).

That episode occurred early on in the securitization of H5N1, and the international production of Tamiflu has expanded considerably since that time, including production in generic form. Nevertheless, that early experience with the limited availability of Tamiflu clearly left a lasting impression on Supari, especially in relation to the eventual development of a vaccine, for which production capabilities would initially remain similarly insufficient to meet demand:

“The incident of the sweeping out of the *Tamiflu* stock by developed countries that had no cases of the disease was [*sic*] really made a deep wound in my heart. . . . Just imagine that when human pandemic of avian flu strikes developing or even poor countries and than [*sic*] because of the scarceness of the medicine they have to witness their people die. A thought flashed into my mind. Whenever they find vaccine for human pandemic of avian flu, I was certain that the rich countries with lots of money will be the first priority, even though the materials of the vaccines, i.e. the viruses come from the affected countries.” (Supari 2008: 5–6)

That fear would become partially realized in 2006 when she was informed by a journalist from the Australian Broadcasting Corporation that an Australian company was trying to develop a vaccine on the basis of the Indonesian strain that it had shared with the international community through the GISN.

This problem of the uneven international distribution of medical countermeasures also continues today in relation to accessing H5N1 vaccines. A report released in March 2009 by the international management consulting firm Oliver Wyman, which was commissioned by the Bill and Melinda Gates Foundation, estimates that the most likely scenario in the event of a H5N1 pandemic would be an international production capacity of 2.5 billion doses of pandemic vaccine in the first 12 months (after the production strain is received), which would still require 4 years to meet global demand (Oliver Wyman 2009). New developments in cell-based vaccines may change that overall equation in coming years, but that is still some time off. Moreover, and as also became clear in relation to H1N1 in 2009, because vaccines usually need to be virus specific, developed countries too would have to wait several months before the first mass-produced vaccines became available. Nevertheless, those inequalities remain an important and enduring feature of global health governance, much to the dissatisfaction of many developing countries.

So frustrated and disillusioned was the Indonesian government in particular, that it took the controversial decision in

December 2006 to withdraw from the mechanism by ceasing to share its H5N1 virus samples with the international community unless the viruses were formally recognized as Indonesian (by signing a formal Material Transfer Agreement), and until greater access to vaccines and other benefits derived from the virus-sharing mechanism were secured for developing countries. As Siti Supari put it in a March 2007 speech at the High Level Meeting on Responsible Practices for Sharing Avian Influenza Viruses and Resulting Benefits, ‘it is time to change the mechanism of the GISN because it is not in favour of the avian flu affected countries’ (Supari 2008: 52). Indonesia, in other words, would no longer cooperate with the long-standing virus-sharing mechanisms unless the concerns of developing countries about access to vaccines and other benefits were systematically addressed first. That crucial decision effectively triggered the international virus-sharing dispute.

With the benefit of hindsight, then, it is possible to trace how the securitized response to H5N1 provoked a chain of events that would end up putting substantial new pressure on existing forms of international public health cooperation. The immense fear surrounding H5N1 compelled governments around the world to protect their populations by undertaking emergency defensive measures like seeking stockpiles of anti-virals and new vaccines. Yet because there is insufficient supply capacity at international level for meeting this demand, that proved very difficult for developing countries to achieve. The latter quite understandably became disillusioned with the merits of maintaining existing forms of public health cooperation like the international virus-sharing mechanism and began openly questioning its legitimacy. From their perspective, those forms of international health cooperation may work well for developed countries that possess their own pharmaceutical manufacturing base, but the material benefits accruing from such cooperation for developing countries are far less evident.

All of this also fundamentally changed the prospects of continuing international health cooperation between developed and developing countries. Whereas hitherto the international virus-sharing mechanism was largely seen as a routine system of functional public health cooperation between countries around the world, its operation now became a heavily politicized North–South issue that eventually also attracted the support of the 112 member strong Non-Aligned Movement (in May 2008). By this point in time the international virus-sharing mechanism was no longer just a technical or functional issue between Indonesia and the WHO, but a political contest between developed and developing countries. After operating for more than half a century, the GISN now faced one of its most significant political challenges to date (Brammer *et al.* 2007: 254–55). That is one significant vector through which the securitized global response to H5N1 has unexpectedly ended up politically complicating an important and long-standing mechanism of international health cooperation.

### Turning lethal viruses into diplomatic bargaining chips

A second effect frequently associated with securitization processes is that they also tend to encourage greater and

more high-level state involvement in the handling of an issue (Buzan *et al.* 1998: 29). That is because of the historical role of the state in terms of being the main provider of security, and the view that providing that security is also one of its core duties. As issues become securitized they thus tend to attract much closer and high-level attention from governments. Evidence of this wider tendency can similarly be found at play in the case of H5N1. However, in the latter case that high-level state involvement too ended up further complicating international health cooperation as some states suddenly began to subject the international virus-sharing mechanism to much narrower calculations of national interest, and even attempted to use virus samples as diplomatic bargaining chips for pursuing their national interest.

The Indonesian government in particular recognized that the securitized international response to H5N1, with all of its frenzied pandemic preparedness activities, also offered positive political opportunities for exploiting the virus-sharing mechanism in the pursuit of the country's national interest. The Indonesian government knew at least three things. First, all the high-level attention on H5N1 made it clear to the government how pressing a political concern H5N1 was in the West, and how much political pressure there was to protect populations against this threat. In the United States, for example, the growing concern about the threat posed by H5N1 had even led to the extraordinary creation of a new high-level position within the US State Department—the Special Representative on Avian and Pandemic Influenza. Protecting their populations against a possible H5N1 pandemic was evidently one of the top political priorities of many Western governments at the time.

Secondly, because Western countries initially had no human cases of H5N1 infection occurring within their own territories, they could only make the vaccines necessary to protect their populations by getting access to wild viruses from other countries, such as Indonesia, where human infections were already occurring (Supari 2008: 10). Without legal and open access to these virus samples, Western governments would struggle to maintain up-to-date surveillance and medical interventions for H5N1 (unless they obtained virus samples by other means). Virus samples were thus a crucial 'resource' for Western governments as they scrambled to protect their populations against the prospect of an imminent pandemic.

Thirdly, because it was eventually confirmed that the Indonesian virus strand was more virulent than other strands, a vaccine based on the Indonesian strand would be the most desirable in terms of offering protection (Supari 2008: 25–27). Describing her realization that the Indonesian virus was distinct and more virulent (and thus of immense interest to those tracking the evolution of the virus and making vaccines), Supari actually felt 'happy' because for Indonesia that now meant 'bargaining power!' (Supari 2008: 27). Supari, in other words, realized at this crucial moment that access to Indonesian virus samples could form new diplomatic leverage for the Indonesian government in its attempts to secure greater access to medical countermeasures for Indonesia. The Indonesian health minister described her thinking in the following, candid terms: 'I had to change the paradigm.

How? I had nothing. My country is not a superpower. I am only a Health Minister with 240 million people to serve... I had to do something... the main variable... is the wild virus. So I had to stop the virus sharing with the WHO-CC [World Health Organization Collaborating Centers]' (Supari 2008: 163). As Indonesia began to assert its 'viral sovereignty' over H5N1 viruses circulating in its territory, those viruses now became transformed from mere biological materials to key political 'bargaining chips' in the diplomatic arsenal of the Indonesian state, which it would use to further its own national interest on the international stage.

Going down this path was a high-risk strategy, of course, in that this would only work as long as the Indonesian government could actually maintain tight control over the viruses circulating in its territories, and prevent outside countries from obtaining virus samples from Indonesia through other channels. Presumably this is part of the reason why the Indonesian health minister later also expressed her desire to evict the US Naval Laboratory (NAMRU-2) from the country, which she suspected at the time as being a back channel for virus samples leaving her country. NAMRU-2 has since been closed down and has been replaced by a new civilian facility. It is probably also for that same reason that before leaving office, Supari further instructed laboratories and researchers in Indonesia not to accept foreign donations any more, as she feared that those funding streams could be accompanied by other demands from foreign donors. Although the future status of a military facility by a foreign country, or indeed foreign aid, is not something which would not normally be seen to fall within the portfolio or remit of a health minister, these are issues she began to take a very keen interest in, presumably because if viruses were to be transferred out of the country through military facility or other links, that would seriously—and perhaps fatally—undermine her bargaining position on virus sharing.

Yet armed with those new 'bargaining chips', Supari also felt sufficiently emboldened to hold out for more than just a few concessions made by the West, and to push for a fundamental transformation of the virus-sharing mechanism. When, for example, she was approached by the WHO with offers of a laboratory upgrade and as much vaccine as they needed in February 2007, she turned those offers down. The reason she cites for this decision is that she did not want Indonesia to be dependent upon the charity of other countries, insisting that 'by recognizing our right over the viruses, we can obtain whatever we need respectfully, because we own something precious to give' (Supari 2008: 41).

Rather than simply accepting those offers of material support, and resolving the dispute there and then, the Indonesian health minister instead formulated a much stronger demand that made Indonesia's resumption of virus sharing conditional upon a more fundamental reformation of the whole virus-sharing mechanism. Her underlying position, which she subsequently advanced at the intergovernmental meeting in November 2007, became: 'Number One: Virus sharing is a sovereign right of a country and not to be compromised. Number Two: Benefits sharing is a consequence of virus sharing, which instead of a charity from the developed country to the country where the virus originated, it is the right of the latter' (Supari 2008:

116–7). Today the negotiations around virus sharing are therefore no longer simply about re-integrating Indonesia into the GISN, but have now become about fundamentally transforming that entire virus-sharing mechanism. Moreover, even though Supari is no longer in office, her position continues to be defended by Indonesian officials, as can be seen by the more recent assertion of a member of the Indonesian Democratic Party of Struggle that ‘Jakarta should not succumb to pressure from the West. I agree with the position of our former health minister [Siti Supari] who has been firmly defending our national interest’ (Budianto 2010).

In the end, Supari’s stronger demand for fundamental transformation of the system may bring future benefits for developing countries. Already the WHO has taken some steps to accommodate the demands of Indonesia and other developing countries, including the development of a system for tracking the movement of shared H5N1 virus samples, and exploring the feasibility of creating a stockpile of vaccines that developing countries could draw on. However, the core demand for a more fundamental transformation of the international virus-sharing mechanism has not been achieved to date. That is because developed countries are currently not prepared to agree to such a fundamental transformation, which—in turn—would not be in their national interest.

Indeed, countries like the United States are very hesitant to agree to a deeper reform of a system that has been operating (in their view very successfully) for more than half a decade. As former US Secretary of Health and Human Services, Mike Leavitt, indicated in his blog from 14 April 2008, he thought Indonesia was ultimately working on a principal of ‘share samples, get paid’ (Leavitt 2008). That may seem like a terse formulation, but it is the underlying principle of whether benefits sharing should be formally tied to virus sharing that now divides both sides and that now makes progress so difficult to achieve. From the perspective of the United States virus sharing should not be linked to benefit sharing in a formal way. Leavitt did acknowledge at the time that ‘the issues of the availability of vaccines and the sharing of samples are both legitimate ones, and we must deal with them both, but we should not link. World health should not be the subject of barter’ (Leavitt 2008). In his view such formal linking would ‘begin to erode our ability to make vaccines at all, because once the practice of free and open sharing of viruses stops, the slope is slippery, and there will be no end to the demands’ (Leavitt 2008). Yet it should not go amiss that this position also favours the national interest of the United States, in that it would be the best system for ensuring that Western countries continue to have unfettered access to samples of new viruses irrespective of where on the planet they first emerge.

In either case, the United States government will no doubt be encouraged by the fact that other developing countries have not followed Indonesia’s more drastic step of ceasing to share virus samples (though vocally supporting Indonesia). It will have further noted that the more recent concern about an influenza A (H1N1) pandemic did not spark any additional attempts to withhold virus samples. The United States government thus continues to make the promotion of global health security one of its key objectives in meeting biological threats

(National Security Council 2009), with the result that a deep diplomatic gulf thus remains between the core parties in the dispute. Indeed, today the issue of virus and benefit sharing is still unresolved, with diverging views on several core issues, and remains subject to further discussion in an open-ended working group (World Health Assembly 2010).

Here too, then, it is possible in retrospect to trace how the securitized response to H5N1 eventually began to put new pressures on the international virus-sharing mechanism and international health cooperation. As a result of the much closer and high-level governmental attention on H5N1, the entire issue of virus sharing suddenly and unexpectedly became subject to much more narrow calculations of state interest. The Indonesian government in particular realized that it was in the United States’ national interest to secure and maintain access to these samples, and Indonesia in turn could use the granting of access to these samples as a way of furthering its own national interest of achieving greater benefits from sharing its viruses. Whilst that strategy may bring advantages to developing countries in the long run (which still remains to be seen), the push for a more fundamental transformation of the virus-sharing system has also raised the political stakes in the dispute further still, and ultimately culminates in a more difficult stand-off between the supporters of the GISN mechanism and those states like Indonesia pushing for fundamental reform. In that process the entire virus-sharing mechanism became transformed from a largely low-level, habitual and routine system of functional public health cooperation, to something that was subject to much narrower considerations of state interests, and would effectively become a bargaining chip in high-level diplomatic negotiations between states pursuing competing national interests. This too forms an important vector through which international health cooperation has, in the end, been complicated by the securitized international response to H5N1.

## Conclusion

What wider lessons about the securitization of infectious diseases can be drawn from the case of H5N1? Those lessons need to be teased out with considerable care. Not only is it very difficult to generalize from a single case study, but we have also already noted that there are undoubtedly a variety of different factors involved in the emergence of the international virus-sharing dispute, including factors particular to Indonesian politics. It is also noteworthy that besides Indonesia, no other country (including those vocally supporting the Indonesian position) has undertaken a similar, formal refusal to share virus samples. Nor, for that matter, has such a refusal manifested itself in the more recent case of the influenza A (H1N1) pandemic.

That said, there is a wider and important lesson that can be learned from the virus sharing episode. Scholars of securitization processes usefully remind us that ‘one has to weigh the always problematic side effects of applying a mind-set of security against the possible advantages of focus, attention, and mobilization’ (Buzan *et al.* 1998: 29). In the case of H5N1 we have seen there were certainly benefits to a securitized response



to global health that can be discerned, especially in terms of resources and political mobilization. However, in many ways the more important lesson to emerge from the ongoing international virus-sharing dispute, and one that has still not been sufficiently appreciated in international policy circles, is that there can also be unanticipated downside risks associated with responding to health issues in a securitized mode. In the case of H5N1, the securitized international response has also had a range of less salient effects in terms of entangling the long-standing virus-sharing mechanism in a wider set of non-technical and non-medical disputes in international politics. Indeed, the securitized response to H5N1 ended up inadvertently provoking an intense re-politicization of international virus sharing where the latter is no longer seen to be of mutual benefit, but as a bargaining chip used by countries like Indonesia to fundamentally reform the virus-sharing mechanism.

None of the foregoing analysis is to imply that things inevitably had to turn out this way, or to detract from the responsibilities of the key parties involved in the dispute. Nor is it to deny that the prospect of a future H5N1 pandemic associated with high human mortality and morbidity was indeed a very disquieting prospect. Yet as an important instance in which a health issue did become prominently securitized in international policy circles, the case of H5N1 does demonstrate very clearly that a securitized response to infectious diseases can also structure global health debates in ways that are not conducive to achieving higher levels of international health cooperation. That is an important insight and cautionary note worth retaining for the future when it comes to dealing with emerging infectious diseases. After all, one of the most salient features of global health over the past decade has been precisely the tendency by many policy makers to try to deliberately shift global health from the mould of 'low' politics, and to make global health a more pressing concern of 'high' politics, by actively seeking the securitization of health through the agenda on global health security.

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## Endnote

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