

The Politics of Disease: Governance and Emerging Infections

Elizabeth M. Prescott

Infectious disease outbreaks demand a timely and proportional response. The responsibility for this action falls to those with the power to harness the processes and systems by which a society operates in order to effect the changes necessary to limit transmission of an illness. Controlling emerging and reemerging infectious diseases can require extreme actions and coordination between many national and international actors making the ability to respond a reflection of the capacity of a governing system. In the absence of good governance, opportunities are created for disease to emerge, while at the same time, an aggressive response is often hindered. Failures in governance in the face of infectious disease outbreaks can result in challenges to social cohesion, economic performance and political legitimacy. Overall, the need for coordination of actions despite a high degree of uncertainty and high costs makes curtailing infectious disease a challenge in the absence of good governance.

INTRODUCTION

According to the World Bank, “a country’s governance system comprises the full array of state institutions and the arrangements that shape the relations between the state and society. [...] Public sector governance refers to the way the state acquires and exercises the authority to provide and manage public goods and services—including both public capacities and public accountabilities.”¹ Many societal problems must be addressed through coordinated efforts. Populations look to those with political authority to confront these challenges and harness institutional resources in a manner proportionate to the societal burden. The nature of the efforts needed to contain and control a communicable pathogen put emerging and reemerging infectious disease (ERID) into the category that requires concerted action. Therefore, characteristics of ERIDs create unique political challenges requiring effective governance to coordinate and mount the appropriate response.

ERIDs are highly variable in their pathogenic characteristics. These differences help define the impact the disease will have on society. By looking at specific characteristics of ERIDs and taking examples from past outbreaks, this paper will examine the impact of emerging infectious disease on social cohesion, economic performance and political legitimacy. This analysis demonstrates significant implications of ERIDs beyond short-term health impacts as the spread of ERIDs expose preexisting failures of governance at the national and international level. Focusing on this link demonstrates the need for good governance by national and international authorities to best prepare for combating emerging diseases.

EMERGING AND REEMERGING INFECTIOUS DISEASES AND GOVERNANCE

An infectious disease is an illness caused by an organism that enters the body then grows and multiplies in cell, tissue or cavities of the body.² Infectious diseases are the leading cause of death worldwide and novel pathogens continue to emerge and reemerge as the ecosystems in which they interact with human hosts evolve.³ The necessary public health response to contain an infectious pathogen depends on the nature of the agent and characteristics of disease progression. Infections can be acute – such as influenza – with the disease occurring in a short

duration and being contagious for a short period of time.⁴ Alternatively, infectious diseases can be chronic – such as Hepatitis B and C – with a longer duration of communicability due to continual reproduction of the pathogen.⁵ Identification of the causative agent of an infectious illness is critical to determining how to counter the health challenge. Novel or emerging pathogens – such as SARS in China in 2003 – are often difficult to quickly identify. As many illnesses have overlapping symptoms, close examination by trained public health professionals is critical to diagnosis of re-emerging or novel pathogens. Provision of This level of public health expertise requires time and resources making ERID a difficult challenge to maintaining the health of any population.

When functioning properly, an effective public health infrastructure requires close and timely coordination between knowledgeable professionals who are able to craft and implement what is deemed an appropriate response to the identified challenge. Rarely is there perfect information about the nature of an emerging disease. Tolerance for uncertainty and trust in the aptitude of public health professionals by political authorities is critical to implementation of the recommended response. Additionally, in most cases, the actions deemed necessary to counter a growing disease epidemic can be costly and require implementation with minimal deliberation without consensus⁶. These characteristics demand political dexterity that is difficult to achieve.

The response to an outbreak of infectious disease is primarily a domestic government function. Maintaining the capacity to respond to a plethora of pathogens is a costly goal for governments. Recognizing that pathogens do not respect political borders, international resources are made available to help combat infectious diseases with the aim of minimizing negative health impacts in a specific country as well as preventing further geographic spread.⁷ However, international organizations such as the World Health Organization (WHO) have limited ability to respond to outbreaks of infectious disease without explicit invitation by the local government where an outbreak occurs.⁸ As such, a government is responsible for addressing domestic public health challenges but is forced to recognize and publicly admit when capacity is insufficient and international assistance is necessary. Achieving this balance of domestic sovereignty over health issues and international responsibility to prevent further transmission is challenging and requires effective domestic governance.

For this reason, an outbreak of an ERID can be indicative of and exacerbated by ineffective governance at the national and international levels. Domestic ability to respond to an emerging pathogen requires effective information gathering and dissemination to appropriately trained individuals who are able to assess the data. Pathogens that are not commonly encountered often require broad consultation with the international health community to effectively identify. In the case of SARS, China delayed disclosure of atypical illness to the international community until the disease attracted international attention as a global problem.⁹ Soon after international disclosure, the global scientific community sought to understand the pathogen, engaging experts in the field of coronaviruses – mostly from animal health – critical to elucidating characteristics of the human disease.¹⁰ The absence of transparency by the Chinese government early in the SARS epidemic is attributed with fueling the global spread of disease, demonstrating the role poor transparency can play in exacerbating an infectious disease challenge.¹¹

Dissemination of information within governments can also hinder disease response. Many ERIDs are zoonotic in origin meaning that they are passed from animals to humans, inducing disease.¹² As such the appropriate response to an epidemic can require actions to control the pathogen in animals concurrent with interventions in the human population. This is

demonstrated in the ongoing battle against avian influenza and has complicated the response to the human health challenge. The expansion of the virus to the bird populations forced countries to find mechanisms for collaboration between ministries of health and agriculture. The varied mandates of these ministries can make an uncomfortable fit for information sharing and concerted action. The ability to function collaboratively within governments can determine the success in responding to an ERID making effective intra-governmental interaction critical.

Effective allocation of critical resources is also necessary for responding to the dynamic threat posed by infectious disease. In some cases assets can be re-deployed from other governmental functions. As seen in the SARS outbreak, governments in Asia were able to utilize the military to perform basic public health functions such as taking temperatures at transit centers and tracing contacts for sick patients.¹³ Unfortunately, resources do not always exist to be redeployed to public health functions, resulting in the need for quick and responsive international assistance. If there are global resources available to dedicate to a pathogen when it emerges, a surge in funds could localize the outbreak. In the case of a pandemic of influenza, however, all countries will need assistance simultaneously taxing international organizations such as the WHO. In this scenario, resources will need to be prioritized making their allocation less of a humanitarian effort than a strategic diplomatic tool.

Additionally, the capacity to take decisive and costly actions in the face of imperfect information can challenge many governments. In acute public health challenges expediency is critical to an effective response so the problem can be countered before it grows too large to contain with available resources. Leaders who are capable of committing to high-risk decisions based on informed scientific opinion are at an advantage. Evidence suggests that the actions taken by the Vietnamese government in response to SARS, --which were aggressive and costly -- were also responsible for extinguishing a growing epidemic in that country.¹⁴ In relation to avian influenza, the delay in identification and response to the arrival of the virus into the bird populations in Nigeria resulted in transmission to other countries in the region.¹⁵ The absence of a rapid and comprehensive response to the pathogen in the early days of introduction in Africa leave the international animal health community highly concerned that avian influenza will become endemic, increasing the challenge for eradication. What these examples highlight is the need for governments to identify an emerging disease challenge, devise a realistic plan for containment, and execute the strategy in a consistent and comprehensive manner. All of these functions rely heavily on effective systems of governance.

DISEASE DISRUPTION

Infectious disease epidemics have plagued society throughout recorded history leading to high levels of disruption when large portions of a population become incapacitated as the epidemic unfolds.¹⁶ For an individual, health is a critical component for active participation in civil society. From a societal perspective, individual engagement in civil society is critical for the economy and politics to function. This connection exacerbates the impact of disease beyond the affect on an individual's health. As such, ERIDs pose a challenge to social cohesion, economic performance and political legitimacy. All of these implications from ERIDs underscore the need for effective governance.

Social Cohesion

To achieve social cohesion the majority of citizens must respect the rule of law, human rights and share a commitment to social order. Members of society need to feel as if their interests are best served by maintaining the legal processes that enable conflict resolution through democratic and institutional processes. These systems function with a normal level of social strain but are susceptible to disruption when faced with heightened levels of societal stress.

An epidemic, by definition, results in more cases of disease than normally experienced.¹⁷ With emerging diseases, outbreaks are unlikely to have been predicted and preemptively allocated resources. When they occur there is an increase in demand for resources creating an opportunity for societal strain. This can lead to scarcity of resources and disruption to social cohesion. Historically, epidemics have been known to induce shortages of critical commodities requiring controlled allocation of resources or occasionally rationing of available supplies.¹⁸ In acute epidemics, the need to allocate available resources requires decision-making in a time frame not conducive to consensus. Confronted with limited resources, increasing demand and the need for selective allocation, individuals may abandon previously accepted social norms in an effort to acquire finite commodities perceived to preserve their wellbeing.

The fear of infection and possible blame from transmission of communicable diseases can add to social tension in an expanding epidemic. In the case of ERIDs, the source and mode of disease transmission is often poorly understood preventing convincing reassurances from the public health community. As fear of contracting a disease grows, the pressure increases on individuals to make decisions that previously may have seemed unfathomable. During the influenza pandemic of 1918, many deaths were attributed to breakdowns in basic social assistance that was commonplace in absence of a deadly pathogen.¹⁹ Neighbors were not providing even basic provisions such as food and water out of fear of contracting the disease.²⁰ Nurses, otherwise dedicated to service in a high-risk work environment, refused to report for duty.²¹ In a climate where the basic safety of an individual is in question, social norms can be quickly undermined without a strong and coordinated government effort to inform and assist the population.

Economic Performance

In economic terms, an epidemic is an exogenous shock that forces a rapid response from governments and markets. The impact of ERID on economic performance can be seen at many levels. The specific characteristics of disease progression and availability of treatments will have a significant impact on the health care cost associated with containing an epidemic. Chronic infections or those diseases with expensive treatment options can consume significant health care resources. ERIDs are often unbudgeted forcing governments to reallocate resources that might otherwise have been used more productively, further straining budgets and future economic growth.

The human capital cost associated with disease can be substantial. While the loss of a single life to infectious disease is tragic from a humanitarian perspective, a disease that kills or permanently debilitates individuals early in life will have a high societal cost through lost

productivity. Early analysis of the economic impact of HIV/AIDS in Southern Africa suggests substantial current and projected costs associated with the growing pandemic.²² The overall impact on a society will vary by many factors including the degree to which human capital has been diversified through training. For example, in economies with a high degree of specialized labor the loss of an individual can create a gap in skill set that may be costly to replace. In economies with less differentiated labor pool, the ability to easily substitute people who can perform the most critical functions could minimize economic disruption. If the labor pool is tight – with little unemployment – even a small loss in human productive capacity could be significant as the price for acquiring human capital increases. High fatality epidemics such as the Black Death in the 14th Century – resulting in the death of at least a third of European population – can cause labor markets to tighten thereby increasing the value of human capital.²³ In case of the Black Death, the shortage of labor is thought to have changed the balance of power between the elite and the peasant classes while also spurring the development of innovations that improved productivity of human capital, laying a foundation for the Renaissance.²⁴

Further, uncertainty surrounding an outbreak forces individuals and organizations to reevaluate economic decisions. At the individual level, this can manifest in changes to planned purchases or delay in activities perceived to be more risky. During the SARS outbreak, despite extensive messaging from US public health authorities about the near absence of risk, there were reports of Americans avoiding Chinese food restaurants in North America.²⁵ Negative economic impacts were seen as companies sourced from alternate suppliers or cancelled business travel to the affected region.²⁶ The SARS outbreak also resulted in economic impacts as companies reevaluated the geographic diversity of suppliers or international facilities to prevent being completely incapacitated from another regional shutdown.²⁷ The diversion of foreign direct investment in the region was substantial during and immediately after the outbreak.²⁸

The long-term economic implications of a specific ERID outbreak is more difficult to establish and will depend on whether the disease causes an outbreak that is acute or chronic. The SARS outbreak in 2003 was a single shock that quickly receded allowing normal activities to resume. Had the pathogen returned in the winter of 2004 as some feared, the associated cost would have been more significant.²⁹ In contrast, the chronic AIDS pandemic is unfolding over generations accumulating long-term societal and economic costs that can only be estimated at this point in history.³⁰

Political Legitimacy

The ability of an ERID to impact political legitimacy depends on factors inherent in the disease as well as the social and political environment in which the disease emerges. Outbreaks of ERIDs are, by their nature, unpredictable and not easily controlled. Over time, a slow trickle of new pathogens appears on the global stage attracting varying degrees of attention.³¹ Many quickly become integrated into societal expectation of disease burden without ever entering the political sphere while others such as Bovine Spongiform Encephalopathy (BSE) or HIV/AIDS, are propelled into the headlines with lingering political implications.³²

The fundamental characteristics of a pathogen also impact the degree of strain a society experiences. A disease that emerges but has few negative health consequences -- causing only mild social or economic disruption -- poses little risk to the legitimacy of the governing regime. Occasionally, however, a pathogen emerges that has significant negative health impacts causing disruption to society and potentially threatening political legitimacy. When a pathogen first

emerges it is often difficult to predict the full trajectory of an outbreak suggesting that all ERIDs be looked at for their ability to destabilize society.

The arrival of an ERID with significant health impacts presents a societal challenge for a governing authority. A substantial outbreak of disease can make individuals more vulnerable and highlight weaknesses in the provision of governmental services. As more people seek access, government services may not be able to meet expectations generating the perception of failure to meet societal needs. Further, as the response is devised and implemented, an anxious population will critique the judgment and effectiveness of the regime. In absence of the epidemic these weaknesses might have gone undetected. When presented with the inability of the regime to meet expectations for responding to an outbreak, legitimacy may be undermined.

Societal expectation for a government's responsibility for the provision of health is also a critical factor when determining the degree to which a disease can threaten political legitimacy. Control of an emerging pathogen requires actions that are coordinated, something governing authorities may be in the best position to provide. In some cases, however, the population may not hold a political authority directly responsible for the failure to contain infectious disease. In order for responsibility to be attributed to those that govern, a population must trust that a government has the capability and willingness to respond in the face of disaster. If the population does not have the expectation that a government will address a health challenge – do to lack of desire or ability – the political impact of a mishandled response may be minimized.

An example of this can be seen in the outbreak of Japanese encephalitis in northern India in 2005.³³ Despite the existence of a prophylactic vaccine, this vector borne disease aggressively infected children in the 2005 monsoon season leaving over 1000 dead and many more brain damaged. Domestic production of a Japanese encephalitis vaccine was minimal but importation of a vaccine from China was an option. Instead, daily reports of children dying met with political promises to do a better job next year. Failure to secure the vaccine to protect children from the disease did not seem to impact political legitimacy. The affected population, persistently plagued by infectious disease, had little expectation of governmental protection from disease thereby diminishing the impact an outbreak could have on political legitimacy. In contrast, shortages of influenza vaccine in the US in the fall of 2004, well in advance of any detected negative health impacts, resulted in significant popular and political attention. Blame was attributed broadly but the effectiveness of political leadership was questioned.³⁴ The American population has high expectations that political leaders will make available plentiful health care goods when they are needed. Failure to provide influenza vaccines was seen as a failure to meet these expectations, and therefore worked to undermine confidence in those that were viewed as being responsible.

CONCLUSION

Emerging and reemerging infectious diseases can undermine the social, economic and political functions of a society. As an outbreak spreads, governments are forced to respond to an unpredicted crisis requiring costly decisions made on imperfect information. The ability to implement and coordinate the necessary actions is reflective of effectiveness governance. An ERID outbreak can magnify preexisting weaknesses resulting in politically visible failures that might otherwise have gone undetected. Further, the spread of infectious disease can reflect the absence of an effective public health system, necessary for basic health maintenance.

Ultimately, the political impact of an outbreak of an ERID depends on the governing capability of the country concerned as well as the credibility the country has with its own population. The potential political impact from an ERID in a country which is known to have good governance and whose population trusts the institutional ability to respond to an outbreak will be higher if the country is unable to meet the challenge effectively. Similarly the inverse holds true.

Interestingly, this interrelationship might present disincentives for a government to raise expectation for their ability to deal with the overall burden of disease. As a population becomes more accustomed to protection from common diseases, expectations could increase for protection from every infectious disease. Therefore, a high level of public health provision in a population could make a regime more susceptible to the politically destabilizing effects of an ERID. While there are many social and economic benefits from minimizing the burden of infectious disease, this suggest a regime could be made more politically vulnerable to an emerging pathogen if the societies overall health is high and a government is viewed as being capable of responding to a novel challenge.

Dr. Elizabeth Prescott works at the intersection of science, society and international affairs. Previously, she was the Practice Head, Biosecurity at Eurasia Group focusing on the political risk of infectious disease. She has served as a AAAS Congressional Fellow funded by the American Society for Microbiology working with the Senate Committee on Health, Education, Labor and Pensions with Senator Edward M. Kennedy and as a Research Fellow at the International Institute for Strategic Studies-US focusing on biosecurity in the life sciences industry. She spent time with the National Academies Board on Science, Technology & Economic Policy and consulted for the Strategy Division of the National Health Service in the United Kingdom addressing integration of genetic technologies into clinical practice. She is a Term Member of the Council on Foreign Relations and a Principal of the Truman National Security Project. She has published in Survival, The National Interest, Proceedings of the National Academies of Sciences and Weapons of Mass Destruction: A Global Encyclopedia

¹ World Bank Global Monitoring Report 2006, Available at www.worldbank.org (accessed on May 21, 2006).

² "Infectious Disease" Complete Medical Encyclopedia. Eds J.Leikin & M.S. Lipsky. American Medical Association. Random House 2003. pp 721.

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⁶ Erik Millstone and Patrick van Zwanenberg. "Mad Cow Disease - painting policy-making into a corner". September 2004. Available at <http://www.merrea.org/Updates/BSE/BSE%20Preliminary%20Report.pdf> (last accessed 9/17/06)

⁷ In the UN, the World Health Organization (WHO) deals with human health, the Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE) assists with animal health. Many other non-governmental and philanthropic organizations also work in this arena.

⁸ In 2005 the WHO amended the International Health Regulations to minimize obstacles to the formal notification process necessary when identifying epidemics. More information on these changes can be found at: <http://www.who.int/csr/ihr/en/> (Last accessed 4/23/06).

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