

Epidemics as Politics with Case Studies from Malaysia, Thailand, and Vietnam

Tuong Vu

Severe epidemics caused by severe acute respiratory syndrome (SARS) and avian influenza viruses have recently killed hundreds of people while causing chaos and panic in many countries. These epidemics have distinct characteristics that make their politics significant and interesting, although both health policy analysts and political scientists have neglected the phenomenon. In this article, I propose an analytical framework that treats epidemics as political processes divided into four phases: “pre-political,” “announcement,” “mitigation,” and “rebuilding” phases. I then apply the framework to the case studies of Malaysia, Thailand, and Vietnam, and show how level of democracy, level of centralization in the state structure, and the social construction of risks shaped government responses to epidemics in these cases. The cases suggest that global health governance should not ignore politics at the national level and the redistributive impact of epidemics originating from or transmissible through livestock.

INTRODUCTION¹

Severe epidemics caused by severe acute respiratory syndrome (SARS) and avian influenza (AI) viruses have recently killed hundreds of people while causing chaos and panic in many countries.² These epidemics have three distinctive characteristics that make their politics significant and interesting. First, unlike acquired immune deficiency syndrome (AIDS) and tuberculosis, these epidemics are especially susceptible to politicization because of their urgency³ and their potential to spread quickly and far beyond the points of origin or discovery.⁴ Second, these epidemics are often caused by zoonoses, i.e. animal pathogens transmissible to human beings.⁵ Although these diseases have not killed as many people as AIDS, they killed livestock and destroyed the sources of income for millions of farmers while forcing governments to spend millions of dollars on vaccine stock and vaccination campaigns. At their peaks, these epidemics even threatened regime legitimacy, domestic stability and national security in the countries affected.⁶ Epidemics in these cases are not only a health issue but also economic, fiscal, political and security challenges. Finally, these zoonoses are most threatening to developing countries undergoing fast economic growth. From China to Cambodia, population growth and income gains have stimulated greater demand for livestock products. As livestock producers rise up to meet exploding demand, their businesses impose severe pressures on rudimentary hygiene standards and the fragile ecological balance between human societies and nature in these developing countries.⁷ The political challenges are how authoritarian governments with weak bureaucratic capacity cope with epidemics and how they can revamp the health regulatory environment quickly enough to keep diseases under effective control as in developed countries.

Although politics is so significant, it is ironically the least understood aspect of these epidemics.⁸ For example, AI, or the “bird flu,” has generated numerous studies but analysts have approached it from any perspective but politics.⁹ Similarly, the SARS epidemic has been mostly analyzed from epidemiological, economic, media communication, and regional security perspectives, and only occasionally in the limited context of Chinese politics.¹⁰ Studies that treat epidemics as crises do not pay adequate attention to their politics.¹¹ At the same time, scholars of health policy and governance have generally been more interested in politics at the global than at national and local levels.¹² The comparative public health literature (to be briefly reviewed in the next section) has identified three important political factors at the national level that explain different policy responses to health challenges across countries. These factors include the level of democracy, the level of centralization in the state structure, and the social construction of risks. To my knowledge, no studies have systematically examined how these factors play out in the kind of epidemics considered here.

This article builds on this literature and seeks to understand how political factors at the national level shape government responses to epidemics. To analyze the politics of epidemics originating from livestock, I propose an original conceptual framework that treats an epidemic explicitly *as a political process* divided into four phases: “the pre-political phase” when animal deaths occur but government officials are not yet informed; “the announcement phase” when the discovery and announcement of the outbreak are made; “the mitigation phase” when the measures to mitigate the impact of the epidemic are implemented; and “the rebuilding phase” when the crisis has passed and producers can resume production.¹³

The proposed framework facilitates the analysis of epidemic politics in three Southeast Asian countries: Malaysia, Thailand, and Vietnam. These cases are selected because they all have recently experienced devastating outbreaks but have produced puzzling outcomes. During 1998-1999, a mysterious Nipah virus believed to originate from bats killed thousands of pigs and 100 Malaysians in a few months. The Malaysian government failed miserably in containing the outbreak and had to shoot half the national pig stock to stop the epidemic. From 2003 to 2008, AI has repeatedly threatened Thailand and Vietnam, causing more than 50 deaths and millions of dollars in losses. Despite facing similar threats from AI, Thailand has been more successful than Vietnam in controlling the virus and in recovering from the damages. Among three cases, Malaysia boasts the highest gross domestic product (GDP) per capita, and Vietnam is under the rule of a communist regime known for its ruthless effectiveness. Their failures to cope effectively with epidemics are thus greatly puzzling.

The following sections present a brief literature review, the conceptual framework, and findings from the case studies. My goal is not to explain all the variations in the case studies. Rather, I seek to demonstrate the usefulness of viewing epidemics as political processes and how important political factors shaped government responses at different phases of an epidemic. In the conclusion, I will discuss two implications of the study for public health governance.

STATE STRUCTURE, DEMOCRACY, AND THE SOCIAL CONSTRUCTION OF RISKS

Studies of comparative public health policymaking have long noted that countries take different approaches even while facing similar problems. Explanations for cross-national variations in approaches and in policy performance are diverse but tend to focus on three main variables.¹⁴ First is the degree of centralization in state structure. A central structure facilitates centralized and uniform policymaking whereas a decentralized structure encourages policies to be developed first at local levels, implying great variations across administrative units. Neither a centralized nor a decentralized structure is inherently more superior in terms of performance. For example, a centralized structure allowed the French central government to tackle infant mortality much earlier and in a more comprehensive manner compared to the United States (US).¹⁵ In a contrary example, the decentralized Brazilian government has adopted aggressive policies and succeeded in its fight against AIDS compared to centralized but laggard South Africa.¹⁶

A second variable, the level of democracy, is more complex than state structure. For example, a popular thesis in the study of epidemic control argues that absolutist, autocratic or conservative regimes are more likely to adopt sanitary cordons and quarantine which require a higher degree of intrusion and coercion than measures to prevent diseases by hygienic reforms.¹⁷ Yet this broad generalization of political cultures and regimes such as “conservative” and “absolutist” is vulnerable to many criticisms. For example, a regime may be “conservative” in some aspects but “liberal” in others. Empirically the relationship between regime types and health policy outcomes appears ambiguous. While autocracies tend to have higher immunization rates than democracies,¹⁸ a recent study of mortality decline in Western Europe found “right-wing” authoritarian regimes did not lag far behind more democratic “welfare states.”¹⁹ Even when a more clearly defined indicator of democracy such as the strength of civil society vis-à-vis the state is employed, the impact is again ambiguous. American success in tobacco control has also been credited to the strength of the anti-smoking grassroots movement in the US.²⁰ Yet South Africa was bustling with civil society groups in the 1990s but this condition failed to transform into effective policies against AIDS.²¹

The third variable identified by the literature is the social construction of risks. Health risks are not just objective facts but are also socially constructed. Three elements constitute the construction process, including credible medical authorities, the development of credible theories on the causes of the risks, and the designation of potential victims.²² Countries vary in their respect for science and medicine. Causal theories also vary based on different assumptions. Finally, risks may be depicted as universal (threatening everyone) or particular (threatening only certain groups). For example, maternal and infant health was interpreted differently in the example above concerning France and the US. French politicians were concerned that maternal and infant health problems could depopulate France, thus posing a threat to the nation. In contrast, in the US the high rates of infant mortality were interpreted as evidence of the “ignorance of immigrant mothers,” a sectarian but not a national threat. Numerous studies have shown that ethnic minorities and the poor often take the blame for epidemics in the US or elsewhere.²³

In the construction of risks, the presence and strength of “boundary institutions” are particularly instructive. These institutions are the rules and procedures such as racial categories or segregation laws that allow the state to monitor or regulate citizens according to particular group identities.²⁴ Boundary institutions can affect whether medical professionals are respected, what causal theories are adopted, and who are identified as potential victims. The contrast between Brazil and South Africa in their AIDS policy has been attributed to the relative strength of such institutions in the latter country.

State structure, democracy, and the social construction of risks do not explain all differences in health policies, but they are among the most critical factors suggested in research on the subject.²⁵ Yet this literature does not suggest how these factors might shape government responses to epidemics originating from or transmissible through livestock. In the next section I will present a conceptual framework to study epidemics as political events. This framework is useful to tease out the particular impact of each factor at different phases in the process.

EPIDEMICS AS POLITICAL PROCESSES

Epidemiologists may have a different scheme to analyze disease outbreaks, but from a political perspective, these events can be divided into four overlapping phases. First is *the pre-political phase* when unusual deaths of livestock concentrated in a particular farm or area occur. Human sickness or deaths may also appear at this time. If we assume that a wealthier society has a greater number of practicing veterinarians per capita, a higher level of disease awareness among their farmers, and better means of communication, news or reports of animal deaths reach local authorities faster there relative to poorer countries. Thus the level of development matters crucially at this stage. But this phase is pre-political: political factors do not yet have a role as long as the government has not been informed.

The second phase begins when local authorities receive reports of the deaths, possibly from a local veterinarian. In this *announcement phase*, political variables start to bear on the process. The degree of centralization has theoretical impact on the flow of information and the rapidity of the response. It has sometimes been argued that a decentralized system allows local governments to deal rapidly with emerging threats rather than waiting for central orders.²⁶ This argument assumes that local governments are capable and willing to act, but this is not always the case. If a local government fails to act in a timely manner, a decentralized system can hamper national coordination to mitigate the impact of the disease.

Assuming information flows all the way to the central level, the level of democracy matters in two ways. First, if there are powerful groups whose interests would be hurt by a public announcement of the outbreak, a high level of democracy means that sufficient checks and balances exist to prevent such groups from blocking a timely announcement. These groups may include large livestock companies which want to sell off their inventory before any announcement is made. Or the tourist industry which fears that news of the outbreak can scare tourists away. Outgoing leaders in an upcoming election may suppress the news in the hope of finishing their terms without controversies; so do new leaders who need to consolidate their power first before

confronting a crisis.²⁷ If political opposition exists in the political system, this can serve as an effective check on these groups or individuals. Second, a high level of democracy also implies a greater degree of transparency in the policymaking process, given that citizens enjoy the rights to access information and to demand timely responses from their representatives. If citizens and professionals are free to voice their concerns in public forums, if the media are free to publish news with minimal political censorship, it would be hard for any powerful groups to conceal the outbreak for very long. A public announcement would depend more on the careful evaluation of scientific evidence and less on undue political concerns.

The social construction of risks matters in this phase as well. If the disease is perceived as affecting only minority groups, less incentive exists for the government to act, especially if such acts incur political costs. Strong boundary institutions in a society may cause government officials to underestimate the extent of risks. Perceptions of low risks would in turn discourage the government from publicizing the outbreak.

The public announcement of the outbreak starts *the mitigation phase*. During this phase, political contention centers on three main sets of questions. First, who is to blame for the epidemic: “dirty and backward” farmers, “greedy” traders, “corrupt” slaughterhouse inspectors, “delinquent” local officials, “incompetent” medical authorities, or “complacent” politicians who were slow to publicize the outbreak? As social actors play the blame game, the scientific community debate the second set of questions such as what virus causes the disease, how it is transmitted to human beings, what is the best way to stop it, what should be destroyed (wild life, mosquitoes, or livestock), and if vaccination helps. The third set of questions, i.e. who deserves government help and how much, are strongly influenced by “the blame game” and, more generally, by the dominant “outbreak narrative” jointly constructed by powerful stakeholders and the media.²⁸ At the heart of these questions are fairness and accountability. Groups that are blamed for the disaster stand less chance to be compensated for their losses and may even be threatened with harsh punishments. Officials who are blamed may lose their jobs and politicians their elections. Farmers as a rule always demand higher compensation for culled livestock.

Taking place against the backdrop of animals being killed en masse and people being hospitalized or dying by the day, this third phase is the most politicized phase. In this phase, the three variables continue to shape the process albeit in different ways. Consider first the degree of centralization. While the central government may call for a massive mobilization of resources to stop the disease, it often has to rely on local governments for the tasks to be implemented effectively. While directly affected areas are keen on supporting central measures, other less directly threatened areas may not. Before some subsidies from the central government can be negotiated, local governments may be reluctant to sacrifice their technically still healthy livestock in the name of national interests. Centralized systems perhaps face fewer challenges in this matter than decentralized ones. The degree of centralization also has an impact on how responsibilities are placed. A decentralized system may encourage governments at different levels to blame each other rather than take responsibility for what happened. In a centralized system this would perhaps be less of a problem.

How would the democratic variable matter during this phase? If checks and balances exist, it would not be easy for powerful groups with a stake in the outcome to

influence the political process to their advantage. Incompetent or irresponsible incumbent politicians would be justly censured. Civil society organizations could play a big role in defending and providing help to weak social groups. Medical professionals would not be under any pressure to toe the official line. All groups could try to manipulate the media to their advantage but the media themselves have their own interests in the struggle. Breaking news increases sales and ad revenues. Theoretically, the social construction of risks also matter. If boundary institutions are strong, risks may be constructed along these lines and blames directed accordingly by the media and by popular opinion. The government constrained by such boundary institutions may be oblivious to the needs of certain groups for help.

The rebuilding phase begins when no new cases emerge, perhaps thanks to the public health measures taken against the disease. In a sense this phase continues the second phase with public debates on causes, culprits, and compensation spilling over. Yet the issue is no longer an emergency; thus normal channels of information, power and resources resume their functions while emergency mechanisms established during the crisis lapse. The fight now takes a slower tempo and much can happen outside public scrutiny. For relevant parties, however, the economic and political stake in the struggle may remain high. The market for livestock products is not the same as it was before. Domestic markets may have collapsed while foreign ones closed off forever. While pundits continue their debate on the causes of the outbreak, government officials consider how to reform or restructure the sector to prevent future outbreaks. The outcome of this struggle may drag on for years but how it is decided has important consequences for public health and for the livestock sector in the affected countries.

In this last phase, the degree of centralization is relevant to the extent that strengthening farming standards require changes in land use policy where local governments often have a big say. The central government can issue general guidelines but frequently must depend on local governments for implementation and enforcement. The level of democracy is still important in this phase in deciding whether losses and costs of necessary reforms are fairly divided or born mostly by weaker groups. Effective checks and balances prevent powerful groups from shifting costs of reform onto weaker ones. The role of the media and the medical community is much less important in this phase but political opposition and civil society advocacy groups are still crucial. The crisis may have left behind new powerful groups such as consumers' advocates, solidarity associations, charity agencies and government watchdogs, not to mention numerous new internet websites and personal blogs. At the same time, civil society may suffer backlashes if (in an authoritarian environment) the government clamps down on outspoken groups and the media once the emergency ended.

Below I will apply the foregoing conceptual analysis to the cases, which will illustrate how state structure, democracy, and the social construction of risks played out differently in each case and at each phase in the process.

MALAYSIA'S NIPAH OUTBREAK, 1998-1999

The first case of what was deemed to be Japanese Encephalitis (JE) infection was reported in January 1998 by the state government of Perak.²⁹ Even though blood tests of this and later cases yielded inconclusive results, the authorities concluded early on that

the disease was JE because the symptoms of the infection apparently matched those of JE.³⁰ Following the detection, health authorities ordered the fogging of affected areas to destroy *Culex* mosquitoes believed to carry the JE virus. Between February and October of the same year, 20 similar cases were reported and five people died. All of the 20 infected victims were associated with pig farms: owners, traders, workers, and their families. Besides continued fogging, pig farm workers were vaccinated against JE. In late November, the Minister of Health declared that the outbreak had been controlled.³¹

Yet by late December, new victims emerged not only in Perak but also in Selangor and Negri Sembilan, states south of Perak. By early January 1999, four more had died in Perak and another four in Negri Sembilan.³² Only by this time did Veterinary Departments in various states issued bans on the movement of pigs from farm to farm or across states. While officials continued to stress that the disease was caused by the JE virus, dissenting voices about its origin were raised since December 1998. First, most victims were not old people and children as would be the case with the JE virus; they were in fact young and healthy pig workers. Second, the JE virus is not known to affect pigs but pigs also died *en mass* after mysteriously developing mental excitation with pulmonary involvement. In mid-March, based on samples taken from dead victims, the US Center for Disease Control confirmed that most cases were not caused by JE but a different, to-be-identified Hendra-like virus.³³ The government then set up a Task Force to tackle the outbreak but still considered the disease to be caused by the JE virus. By then, thousands of residents in pig-farming areas began to flee their homes in panic, leaving behind their pigs roaming the streets. Schools were closed and entire towns were abandoned. The outbreak peaked in March and April, when hundreds of people were infected and the human death tolls reached 100. At this point, troops were sent to affected areas to shoot and bury hundreds of thousands of pigs. This effectively ended the outbreak by May.

Why did the government fail to realize that the outbreak was caused not by JE but a different virus? This issue was critical because it affected the strategy for controlling the outbreak.³⁴ Besides the medical uncertainty involved in identifying the exact causes of the epidemic, political variables were critical in this failure. Consider first the state of democracy in Malaysia. Since independence, the Malaysian government has been dominated by the National Front (*Barisan Nasional* or BN), a coalition of four main ethnic parties: the United Malay National Organization (UMNO), the Malaysian Chinese Association (MCA), the Malaysian Indian Congress (MIC), and (since the 1970s) the (mostly Chinese) People's Movement Party (*Gerakan*).³⁵ UMNO is the most powerful partner in the coalition and can be considered the ruling party. There are two main opposition parties: the largely Chinese Democratic Action Party (DAP) and the Malaysian Islamic Party (PAS). DAP is strong in Chinese constituencies and for decades PAS has controlled state government in one northern state. BN has managed to maintain its domination even though individual politicians of the coalition often face stiff fights to retain their seats, among themselves as frequently as with opposition candidates.³⁶ UMNO's well-institutionalized dominance suggests a shortage of checks and balances in the system. This results in a systematic suppression of critical or dissenting views from the medical community and the media, which was confirmed by various sources.³⁷

The social construction of risks was just as important as the low level of democracy. Pigs are considered dirty in Islam and no devout Muslims would want to have anything to do with pigs. Any issues associated with pigs are considered “Chinese” domain. For national unity the federal government dominated by Muslim-Malays tolerates but does not support the pig sector. In the words of a local academic, the pig sector is something national Malay politicians “can’t swallow but can’t spit out.”³⁸ The MCA, which represents Chinese interests in the ruling coalition, plays only a secondary role to the Malay UMNO. While UMNO politicians were sympathetic with Chinese issues on a personal level, there would be clear political costs for them to say so in public. For example, when the government appointed the Deputy Prime Minister Abdullah Badawi to lead the Task Force, PAS leader Fadzil Noor joked publicly that “while the Badwis (Bedouins) in Arabia looked after camels and goats, the “Badwi’ (Badawi) in Malaysia was taking care of pigs.”³⁹ The joke insinuated that Mr. Abdullah was not a good Muslim by dealing with pigs. The lack of government attention to the outbreak is thus understandable. Chinese and others’ questioning of the prevailing JE hypothesis only fell onto deaf (Malay) ears.⁴⁰

A low level of democracy and the way risks were constructed clearly led to the delayed admittance of mistake in diagnosis. These factors were exacerbated, but not caused by, the highly-charged political environment at the time. Malaysia experienced a political earthquake in September 1998 when Deputy Prime Minister Anwar Ibrahim was sacked for challenging his boss’s policy to cope with the financial crisis of 1997.⁴¹ Anwar was subsequently detained and brought to court in September with charges of sodomy. As the trial went on, his wife led massive street demonstrations and joined forces with opposition parties to protest against the ruling coalition. Middle-class Malays angered by the treatment of Anwar flocked to support PAS and DAP. This tense political environment must have distracted policymakers from the outbreak.

Yet eventually government officials were forced to acknowledge, partially and belatedly, that the outbreak was caused by a new virus. Why? First, while the ruling UMNO controlled most mainstream media through ownership, there were alternative channels of information, especially online ones. One of the first voices that questioned the JE hypothesis in fact came from a foreign epidemiologist working in West Malaysia who posted her email on an online forum of Malaysian health professionals, questioning the government’s claim that the JE virus was the cause. Another early dissenting voice was reported in the Chinese newspaper *Nan Yang Siang Pau* in December 1998. Chinese papers were subject to much less state control than Malay-language ones. As the epidemic spread, it became harder for the government to persuade people not to believe in alternative viewpoints. A second factor that apparently forced the government’s hand was the action of thousands of pig farmers and workers, who fled their homes and farms despite the government’s contrary advice. This mass action threatened a dangerous breakdown of order and national security.

Turning to the mitigation phase, all three variables exerted their influences on the political process. The blame game in this phase was particularly shaped by the federal structure of the Malaysian state. Malaysia is organized as a federation comprising 13 states. Constitutionally, state governments are vested with significant power in regards to land, mining, agriculture, forestry, local administration, housing, and local markets.⁴² Federal and state governments share responsibility for animal

production, protection of wild animals, veterinary services, and animal quarantine, among others.⁴³ Although the federal government has supreme authority and controls major sources of revenues, federal policies touching on issues in which states have constitutional authority require negotiations or political resources to be expended.

The blame game started when the federal Minister of Housing and Local Government revealed that state governments had agreed with a federal directive many years ago to relocate pig farms for better disease protection and sanitary conditions.⁴⁴ According to him, the federal government did not support closing down pig farms which would cause unemployment and dependence on imported pork, but it did call for relocation of polluted farms to improve bio-security.⁴⁵ Rejecting the federal government, the top government official in Perak, the state most affected by the epidemic, claimed that federal ministries had the power to make farmers relocate by issuing orders related to public health.⁴⁶ This official also blamed “illegal pig farm operators” for what happened. The state of Melaka also claimed that it had cancelled all pig farming licenses in 1991, meaning the 100 farms rearing 150,000 pigs that still existed in the state in 1999 were operating illegally.⁴⁷ Without explaining why such a large number of “illegal” farms could exist, the state government vowed that they would be closed down in one year “to ensure the safety of all.” In response, the Chairman of the Malaysian Livestock Federation (FLFAM), an association of (Chinese) livestock producers, came to the defense of pig farmers, claiming that they had agreed to relocate but state governments had not approved land for building new farms.⁴⁸ He called on the federal government to help, implicitly suggesting that a deadlock existed between pig farmers and state governments.

The blame game also reflected the role of boundary institutions that maintained the racial cleavage between Malays and Chinese. Throughout colonial and postcolonial periods, government laws and regulations in political, economic, and cultural spheres have sharply distinguished Chinese from Malays. British colonial policy of racial segregation reflected in part turn-of-the-century Western racism and in part the colonial government’s desire to protect Malay farmers from more commercially astute Chinese migrants.⁴⁹ The political system with ethnic-based political parties forged at the time of independence further reinforced racial cleavages among Malays, Chinese, and Indians. Since 1971, the Malaysian government has implemented affirmative programs aimed at addressing the racial inequities created in part by colonial policy.⁵⁰ While quotas in university admissions, government employment and business ownership have helped Malays as a group to achieve relative equality with Chinese, these programs have deeply alienated Chinese and Indians.⁵¹ These boundary institutions in political, economic, and cultural spheres underlay the attitudes of some Malays who laid the entire blame on Chinese while being silent about the hostilities toward Chinese pig farmers by many Malay politicians at the state level. These Malays blamed “greedy” pig farmers for ignoring health regulations and the government for ignoring (Malays’) anti-pig farms protests. The outbreak was considered “[God’s] warning.”⁵² Yet many pig farms had only temporary occupation leases, which gave them no incentive to invest in costly sanitary equipment. Many state governments had refused to give them new lands or renew their licenses.

As the blame game went on, a struggle developed around compensation. Farmers wanted to be compensated with RM 200 for a culled pig, and harassed government

officials at community meetings to demand compensation.⁵³ Chinese community leaders who called for adequate compensation argued that sufficient compensation would give incentives to farmers to comply with culling. Prime Minister Mahathir Mohamad initially ruled out compensation. Thanks to Chinese collective efforts,⁵⁴ he eventually relented and agreed to pay only RM 50 for every pig in affected areas and RM 10 for those in safe areas.⁵⁵ On balance, the government treated the matter as a communal rather than a national affair.⁵⁶ The MCA, not a government agency, was assigned the task of fundraising to help pig farmers. The MCA proposed a lottery to raise money despite the knowledge that lottery was prohibited in Islam and would not attract Muslim buyers. This proposal indicated and further reinforced the prevalent public perception that the problem was a Chinese one. Thus the way risks were perceived critically influenced government policy to fight the epidemic.

The same factors, including boundary institutions and federalism, continued to shape the rebuilding phase. The improvement of sanitary conditions in pig farms has been viewed by Chinese as unfair burden imposed on them by anti-Chinese Malays. Chinese resistance is in turn considered by Malays as motivated by pure greed. Governments in several overwhelmingly Muslim states no longer issue new licenses for pig farms.⁵⁷ Malay politicians in other states have also sought to adopt similar measures, only to stir up Chinese opposition.⁵⁸ In late 2007, the state of Melaka sought to use force to reduce the number of pigs in the state by half, leading to massive Chinese protests.⁵⁹ Despite the hardened attitude by many state governments toward pig farming and the uncertain future of the industry, surviving producers are apparently not concerned about improving farm biosecurity.⁶⁰ As argued above, this is caused in part by the federal system in which land use is under state control, and state governments have found many excuses to delay allocating land for relocating pig farms.

Economically, despite government neglect and Muslim hostility, the sector has been able to gradually recover, thanks to strong Chinese demand for the product, Chinese political clout in some local governments, and Malaysia's geographical proximity to Singapore (which closed all its pig farms in 1990). By 2005, the industry had become profitable again because rising demand and limited supply caused prices to soar. Yet supply capacity has never recovered to pre-1999 level. The industry arguably could have done much better had it received government support.

THAILAND'S BIRD FLU OUTBREAK, 2003-2004

Thailand's most serious livestock disease outbreak in recent years (2003-2004) was caused by the highly pathogenic avian influenza (HPAI). Early incidents of massive chicken deaths were reported in November 2003 but the government declared that the causes were diarrhea and bronchitis, but not bird flu.⁶¹ Limited quarantine measures were carried out but these appeared ineffective as the disease spread and the number of culled chickens reached tens of millions by mid-January. By this time, several veterinarians, opposition politicians and the Consumer Power Association publicly accused the government of lying and covering up the outbreak to protect large poultry producers. Yet government officials from the Prime Minister to the Agriculture Minister simply repeated their denials. They only conceded in late January that the deaths were caused by the bird flu virus.

Once the epidemic had been admitted, the government moved quickly to set up “red zones” for quarantine purposes while still trying to protect producers. The government rejected outright vaccination as an option, citing that vaccination did not save China from a second outbreak.⁶² The proposed measures to prevent future outbreaks included a ban on fowl transport, the registration of all fowl farmers, the insertion of microchips in fighting cocks, and increased disease surveillance and slaughterhouse inspection. Loans and land were also provided to “landless farmers” to raise chickens in 20 chicken-farming estates to be set up in the near future.⁶³

The announced measures received praises from poultry exporters and their association but earned prompt condemnations from various quarters. Focus on the Global South, a Bangkok-based foreign NGO, defended small farmers and criticized the Thai government for acting in the interest of large poultry exporters.⁶⁴ The microchip idea was denounced as a scheme to enrich politicians.⁶⁵ The Moor-Duck and Goose-Farmers and Traders’ Club threatened to demonstrate if the transport ban was not lifted in seven days. The Fighting Cock Professional Promotion Association opposed the ban on vaccination and demanded that it be lifted after three months. In response, the Prime Minister allowed the vaccines to be used for fighting cocks but not farm chickens. The idea of microchips was also dropped.

Why did Thai politicians deny the epidemic for months before admitting it? There are similarities and differences between Thai and Malaysian cases. Consider first the level of democracy. Like in Malaysia but to a lesser extent, Thai politics is dominated by politicians and bureaucrats. Decision-making at all levels lacks transparency and dissenting voices are often not allowed. Government officials apparently suspected the AI virus as the cause of the outbreak but tried to manipulate suspicious farmers and local journalists to believe otherwise.⁶⁶ Although no officials would admit to covering up the outbreak, intense political pressure was imposed on Thai public officials and medical professionals to keep quiet.⁶⁷ Even after having declared the outbreak, the government continued to manipulate public information about the event. The Deputy Prime Minister even said a public panic worried him more than the outbreak. He declared that only designated spokespersons of the government, the Ministry of Health and the Ministry of Agriculture were allowed to issue public comments.⁶⁸ Thai system may appear more democratic than Malaysia but its checks and balances apparently fell short of guaranteeing transparency.

The lack of transparency had to do with the great political power of livestock corporations which would stand to lose tremendously if the outbreak had been announced. Thailand’s successful livestock sector ranks third or fourth in the world by the exported quantity of frozen chicken meat. The sector is dominated by a few poultry businesses. The largest firm is Charoen Pokphand (CP) Group, which is also Asia’s largest agro-conglomerate. CP began as a small family store selling animal feed and was a pioneer in poultry production for export in the 1970s.⁶⁹ In 1995, the Group’s total turnover was US\$4 billion and it employed about 100,000 employees in 20 countries, engaging not only in poultry but also in retailing, real estate, telecommunications, and petrochemicals.⁷⁰ Its economic clout would be sufficient to make politicians and officials listen, but the firm also enjoyed direct access to the government: the son-in-law of CP’s founder, Dhanin Cheavaranont, was a cabinet member under Thaksin.⁷¹

There is circumstantial evidence that poultry exporters had a hand behind the failure of the Thaksin government to announce the outbreak early. When accused of covering up the outbreak, CP executives admitted that they were aware of the possible presence of the AI virus in Thailand since November 2003 and had then “provided the information to the government.”⁷² Yet they said it was not their responsibility to declare the outbreak. At the same time, they loaned the government US\$5 million to compensate farmers whose animals were culled, which may be viewed as bribes to the farmers just to keep their mouths shut.⁷³ Finally, a trade unionist in a CP factory testified that workers in the factory had to work overtime during November and December to process an increased amount of meat, part of which came from apparently sick chickens.⁷⁴ If this account was true, poultry companies were hiding information while lobbying the government to delay announcing the outbreak.

Although the Thai government may be easily captured by business interests, political power is more evenly distributed in Thailand compared to Malaysia. Thailand had a much weaker ruling party and freer press than Malaysia did. While UMNO had been in power since independence, the coalition led by Thaksin’s TRT party assumed power in 2001 for the first time. There were numerous political parties in Thailand, and except one or two, most had recent origins. Parties were created to win elections and most did not survive a few electoral seasons. The dominant institution in Thai politics has been the military, which would have been able to suppress information more effectively had it had any stake in the outbreak. Furthermore, Malaysia did not (and still does not) have independent English-language newspapers, such as Thailand’s *The Nation* and *Bangkok Post*, despite the greater use of English in Malaysia relative to Thailand.

Thailand also differed from Malaysia on the social construction of risks and the level of centralization. Thais are predominantly Buddhist, and the outbreak concerned chickens and not pigs. The outbreak was always viewed as a national problem. Unlike Malaysia, a centralized state structure helped Thailand avoid the confusion between federal and local responsibilities during the mitigation phase. No difficulties in coordination between the central government and local ones were reported. Politics was at the heart of the blame game in Thailand as in Malaysia, but blaming occurred primarily between departments of the central government and between the ruling coalition and opposition parties. The National Health Office under the Ministry of Health openly criticized the Department of Livestock Services under the Ministry of Agriculture for covering up the outbreak.⁷⁵ Opposition politicians called for a non-confidence vote and demanded the resignation of Ministers of Health and Agriculture.⁷⁶ Yet there was no finger-pointing between central agencies and local governments as in the case of Malaysia. Thailand’s unitary structure made the central government the focal point of conflicting claims, whereas the Malaysian federal system created confusion about who and in what areas would have the final responsibilities.

Thailand’s imperfect democracy displayed mixed roles in the mitigation phase as it did in the announcement phase. On the one hand, corporate interests still shaped government policies at the expense of other groups. A billionaire before entering politics, Prime Minister Thaksin went on radio a week after the announcement of the outbreak, pledging to use his own money to pay *Baht* three million to the family of any victim of bird flu who died after eating *cooked* chicken.⁷⁷ This move may have been

aimed to calm the public, but it was certainly carried out with the interests of poultry producers in mind. Thaksin's statement protected all producers, large or small, from being destroyed financially by consumers' fear and rejection of chicken. At the same time, his government was unequivocal in placing the blame for the outbreak on backyard farmers but not on those farmers contracted out by CP and other large producers that employed closed-house technology.⁷⁸ Of course, that was also the position adopted by large poultry businesses such as CP.⁷⁹ The government also came out strongly against vaccination as an approach to stop the outbreak. This decision can certainly be justified on scientific grounds, but it would be hard to deny the fact that poultry exporters had a big stake in this issue⁸⁰ and must have pressured the government to reject vaccination.

Despite the political influence of big poultry exporters, Thailand's civil society, an indicator of democracy, did play an important role in the process. In opposition to the close alliance between big poultry businesses and the government were a wide range of advocacy organizations, as mentioned above. These organizations effectively defended the interests of smallholders and other affected groups that had no access to policymakers and that were being blamed for the outbreak. Thailand's civil society emerged from the democratizing process since the early 1990s. Competitive elections for national and local legislatures now make rural voters' support crucial to political parties. Furthermore, farmers' groups now stage regular protests to demand price supports, land compensation, and other favorable policies that the government can no longer suppress or ignore.⁸¹ While it may be easy to buy the votes of many poor farmers and co-opt their organizations,⁸² politicians have also sponsored many policy initiatives designed to promote agricultural production.⁸³

In the rebuilding phase, the government's program continued to show the strong political influence poultry businesses enjoyed. The Thai government's support for its poultry exporters sharply contrasted with Malaysia. When Japan banned the import of Thai frozen chicken, Thailand's Minister of Commerce threatened to retaliate with a ban on Japanese cars.⁸⁴ After another outbreak occurred in July 2004, the government proposed a bailout plan for large poultry producers with excess stock. Under this scheme, taxpayers' money would be used to purchase 100,000 tons of frozen poultry meat from the three largest poultry firms.⁸⁵ The meat would be exported by the government with possible barter deals with Russia and Sweden.

Full government backing was clearly an important factor explaining the different outcomes in Thailand compared to Malaysia. Thailand's large poultry exporters such as CP have shown surprising resilience after losing millions of dollars in poultry exports and in stock prices.⁸⁶ Even before the outbreak hit, CP executives were seeking to develop market in Japan for high-priced precooked chicken meat. Now no longer able to export uncooked chicken following the outbreak, they have successfully switched to cooked meat, exports of which rose by 80% from 193,000 tons in 2004 to 350,000 tons in 2005.⁸⁷ This move actually helped them in the long run to enter processing activities with greater value-added and to avoid rising competition from newcomers like China which rely on lower labor costs.

VIETNAM'S BIRD FLU OUTBREAK, 2003-2004

Among Southeast Asian countries, Vietnam has suffered the most from recurrent bird flu outbreaks (2003-2008).⁸⁸ This section examines the first bird flu outbreak during 2003-2004. The first signs of the virus were detected as early as July 2003 but the disease spread unadvertised as the government adopted a policy of quiet mitigation.⁸⁹ In September, there were some brief reports in local newspapers of suspicious chicken deaths and farmers selling off dead chickens. These reports dropped vague hints of a possible bird flu epidemic but no open mentioning of it was heard in the press or any other public forums until late December.⁹⁰ By early January 2004, when outbreaks had occurred in more than 10 out of 64 provinces, the government formally announced the epidemic to the world.

After the official announcement, chaos reigned. The central government ordered provinces to undertake quarantine and culling measures but provinces, especially poorer ones, dragged their feet while demanding central subsidies. Many provinces were believed to hide outbreaks to avoid shouldering the costs of compensation and culling.⁹¹ To nudge local governments into action, three Deputy Prime Ministers and six Ministers were sent around the country. Feeling that the normal chain of bureaucratic command had broken down, the Communist Party's Politburo intervened with an order to mobilize party organizations into the act.⁹² Subsequently, a donor-funded vaccination campaign was launched in mid-2004 but outbreaks appeared again later in the year, in late 2005 and, most recently, in late 2006 and early 2007.

Why was Vietnam slow to declare an outbreak? Consider first the level of democracy. Among the three cases, Vietnam scores lowest on democratic indicators. The Vietnamese Communist Party monopolizes power, making all important policy and personnel decisions. Most policies are made by Party officials doubled as state executives in closed committees outside of public view. Elected organs (e.g. the National Assembly) and mass organizations (e.g. the Trade Union) have little power although their collaboration is often sought to legitimize executive decisions and to implement policies. The Vietnamese political system is thus highly authoritarian and normally, officials are accountable only to their superiors but not to any social groups.

An authoritarian structure explains why no decision was taken even though relevant authorities had been warned about the threat of bird flu in 2003. A livestock official revealed that informal suggestions were made to Ministry of Agriculture officials in late 2003 for an aggressive response to the suspicious poultry deaths, but top leaders either were not informed or failed to take action.⁹³ The excuse for not declaring the outbreak given later by these officials was the fear that a public announcement would hurt tourism.⁹⁴ Government officials were not concerned about how an early announcement and quarantine would *help* millions of farmers, suggesting the latter's lack of representation in the system.

In any country, when authorities decide not to act, it falls on those outside the government to blow the whistle. We have seen that this happened in Malaysia and Thailand. Here, the very low level of democracy in Vietnam exerted an impact on the process in the sense that effective government control of information and association prevented the emergence of whistle-blowers. While Vietnam has loosened up recently, there are still no private media, private publishers, or autonomous advocacy

associations. Censorship is institutionalized through Party committees organized for every newspaper, radio and television station, publishing house, professional association, research institute, and university department. With few exceptions, all positions of authority in these institutions are occupied by party members working within the Party hierarchy and being bound by Party discipline much more than by their professional or public commitments. Sensitive information or alternative views from official policy must be cleared in advance by Party committees before being disseminated. Violations of this rule could make officials vulnerable to Party disciplines.

Above all, the Party's Central Commission on Culture and Ideology holds weekly meetings with editors-in-chief from all major state-owned media to tell them what news to report and how to report. To be sure, the system never had complete control over information even in its heydays. Savvy journalists and conscientious intellectuals have never stopped pushing the limits whenever possible, as noted above in the publication of a few reports of suspicious chicken deaths prior to the official announcement. However, information is far more systematically controlled in Vietnam than Malaysia or Thailand. In the latter countries, alternative theories of the disease or news of suspicious livestock deaths were independently circulated while opposition parties challenged officials in public forums on the matter. In Vietnam, in contrast, tight state control over information explains why news of the outbreak was effectively covered up until the government decided to announce the outbreak on January 8, 2004.⁹⁵ The checks on the power of the Party-state were weak as evidenced in the fact that the late announcement was only briefly criticized in the press⁹⁶ and no officials took responsibility for it.

Vietnam's relatively low level of centralization also contributed to the delayed announcement of the epidemic. Vietnam is in theory a unitary state under the unified leadership of a hierarchical communist party. Yet central powers in Vietnam are much more limited than expected. The principle of centralization is circumvented by two mechanisms. The first mechanism is central-local power-sharing in the Central Committee of the Communist Party, the top policymaking body in the country. Provincial leaders are well represented in this Committee (one seat for every province and two each for Hanoi and Ho Chi Minh City), and together they form the largest bloc in this body. The second mechanism is through dense and informal patronage networks linking central and local factions. Local governments often ignore central policy with impunity: for example, at least half of provincial governments have been found to violate investment laws in order to attract more foreign investment to their provinces.⁹⁷ Given their institutional power, provincial leaders could safely get away if they wished to hide outbreaks for whatever reasons.

Turning to the mitigation phase, democracy and centralization again explain well the outcome in Vietnam. During this phase, few opinions different from those of officials were heard on public forums. Besides compensation which was inadequate and late to come, officials made no efforts to protect farmers or the industry with a view towards its eventual recovery. The blame was placed entirely on small holders (and sometimes wildlife) and the plan was to restructure the industry to eliminate their role. The state-sponsored Farmers' Association, which was supposed to represent the interests of farmers, never came to the defense of livestock producers. Many urban governments banned all livestock raising activities outright. Ho Chi Minh City government declared a "Three-No's" campaign, i.e. no eating, no keeping and no transporting poultry.⁹⁸ The

state-controlled media, while frankly reporting weak government coordination, contributed to the panic,⁹⁹ which hurt those producers whose stock was not affected by the disease. Only months after the poultry sector had suffered devastating losses, less from culling than from losses of customers and tumbling prices, was the Minister of Agriculture seen on television eating cooked chicken.

Compared to Thailand or even Malaysia, Vietnam's private producers lacked political protection. Many farmers volunteered to cull their birds because nobody would buy their chicken, which continued to consume food and cost them money.¹⁰⁰ Big producers were hit as much as smallholders. The construction of CP's fourth feed factory in Vietnam was suspended for two years.¹⁰¹ After the Vietnamese government banned the sale of chicken, Thai-owned Kentucky Fried Chicken franchised stores in Vietnam had to close shops for weeks before reopening and changing the menu to serve fish instead of chicken.¹⁰² This led one journalist to quip that "KFC" now stood for Kentucky Fried Catfish. The same KFC chain in Thailand continued to serve chicken and actually did better during the outbreak because their restaurants were the only few places where Thais could eat chicken without worrying about the quality.¹⁰³ Besides CP and the KFC chain, Cargill Vietnam was forced to close down its chick breeding farm in 2005. While the powerful interests of poultry exporters in Thailand corrupted politics, legitimate interests of poultry producers in Vietnam were not adequately protected because they were denied representation in the political system.

Vietnam's low degree of centralization continued to be a factor in the mitigation phase. As mentioned above, after the announcement of the outbreak, the central government called on all provinces to strengthen their oversight over the production and trade of chickens and ducks. Yet many provinces demanded subsidies from the central government *before* complying with central orders.¹⁰⁴ This practice can be traced to the socialist past when all revenues were collected and distributed by the central government based on *ad hoc* negotiations. Since reform, provinces have been permitted to develop their own fiscal base, but a few years ago only about 10 out of 61 provinces and provincial-level cities were rich enough to be either fiscally self-sufficient or to contribute surplus funds to the central budget.¹⁰⁵ While decision-making power was fragmented, fiscal power was not similarly dispersed. Too many provinces are still dependent on the central government. The reliance on *ad hoc* negotiations on fiscal matters under these conditions led inevitably to slow responses to emergencies at the provincial level.

During the rebuilding phase in Vietnam, wildlife and small farmers continued to be blamed. A low level of centralization generated various approaches to compensation and reform across local governments. Provincial governments were responsible for compensation, and poor provinces offered very low compensation to farmers for their culled poultry.¹⁰⁶ Since 2004, the central government has requested foreign funds for restructuring the sector. It has also ordered provinces to come up with plans to reform livestock farming practices with the goal of reducing the stock owned by smallholders.¹⁰⁷ Governments of large cities have started drawing plans to build new slaughterhouses but other local governments have not done so.¹⁰⁸ Some improvements in trading practices in the poultry market have been observed together with a greater popularity of frozen chicken among urban consumers.¹⁰⁹ Yet poor sanitary standards remain a real problem and have contributed to subsequent outbreaks.¹¹⁰

Full recovery dragged on for many years because bird flu outbreaks returned five more times. In subsequent outbreaks, both central and local governments issued tough regulations that banned livestock keeping in cities, towns, “places near schools and residential areas,” livestock transport on passenger vehicles, and livestock slaughtering out of designated areas.¹¹¹ The mode of policymaking continued to reflect the lack of inputs in the process from farmers and businesses. This lack of inputs in turn reflected the low level of democracy in Vietnam, which allowed the state to ignore the legitimate needs of a large number of people.

CONCLUSION

The politics of epidemics of the kind examined here has not received much attention from both political scientists and public health specialists. These epidemics are on the rise recently because of exploding demand for livestock products in industrializing countries. Besides the obvious threat to human lives, these epidemics are especially important because they affect a large productive sector and the livelihood of millions of farmers.

The case studies illustrate how important political factors at the national level shaped government responses to recent epidemics. The inadequacy of democracy accounts for delays in making public announcements of outbreaks in Thailand and Vietnam. The same factor explains in part the failure of the Malaysian government to correct its mistake in diagnosing the cause of the outbreak. The lack of transparency at various degrees in all three cases led to late announcements and greater damages than would have been the case. Insufficient checks and balances explain the different outcomes during the mitigation phase in Malaysia, Thailand, and Vietnam. Producers suffered the most in Vietnam because they had no voice in the system. In Thailand, the great political influence enjoyed by poultry exporters was balanced by political opposition and strong civil society groups, generating a more equitable outcome.

Like levels of democracy, varying levels of centralization in the three cases contributed significantly to the outcomes. A low degree of centralization accounted for the slow and ineffective responses to epidemics in Malaysia and Vietnam during all three political phases. In the former country, the fact that land allocation rights rested with local governments was a critical factor. In the latter country, the dispersion of power but not fiscal capacity and the reliance on *ad hoc* bargaining between local and central governments accounted for the ineffective responses to the bird flu epidemic.

The social construction of risks is found to be a central factor in the Malaysian case but not in the other two. The epidemic involved pigs, which split the country along its ethnic and religious fault lines. The Muslim sensitivity to pigs led to the government’s neglect of the sector and the epidemic. The epidemic was thus framed and dealt with as a communal but not national crisis.

State structure, democracy and the social construction of risks do not make up all aspects of politics; however, these are systemic variables that represent the basic institutional setup of a political system and the fundamental cleavages in a society. These variables not only shape the manner by which governments respond to epidemics, but also contribute to state capacity by affecting state ability to process information, make decisions, and mobilize political and social resources. While state capacity is also

determined in part by bureaucratic competence, elite unity, and the general level of socio-economic development, these factors did not seem to explain Thailand's better performance relative to Malaysia and Vietnam. My interviews suggest that Malaysian bureaucrats were just as competent and dedicated as their Thai counterparts. Thai elites bickered openly and occasionally violently throughout the period examined here, and Malaysia is nearly twice as rich as Thailand which is in turn more than twice as rich as Vietnam (measured by GDP-PPP per capita).

By examining the national politics of epidemics, this study has two policy implications for public health governance. First, my analysis suggests that epidemics originating from or transmissible through livestock have considerable redistributive impact on various social groups. For effective disease control, governments and global health institutions have to sort out the political economy of livestock production and consumption in affected countries. The narrow approach that treats these epidemics as mere health challenges helps only the victims of the disease and will not work to create sustainable disease control frameworks. Second, the cases indicate that global schemes for monitoring and collaboration for disease control may have only limited impact if they ignore politics at the national level. Global solutions to epidemics require collaboration with national governments which must be committed to providing greater transparency in disease reporting, making long-term planning for land use in relation to livestock production, and opening up dialogues across social cleavages on the dangers of zoonoses.

Tuong Vu is an Assistant Professor in the Political Science Department at the University of Oregon.

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² Landis A. MacKellar, "Pandemic Influenza: A Review," *Population and Development Review* 33 (2007): 429-451.

³ The diseases victimize people relatively soon after exposure. To be sure, the politics of AIDS and tuberculosis are interesting and significant in their own ways. For example, see Evan Lieberman, *Boundaries of Contagion: How Ethnic Politics Have Shaped Government Responses to AIDS* (Princeton: Princeton University Press, 2009); S. Elbe, "Our epidemiological footprint: The circulation of avian flu, SARS, and HIV/AIDS in the world economy," *Review of International Political Economy* 15, no. 1 (2008): 116-130; Samuel Roberts, *Infectious Fear: Politics, Disease, and the Health Effects of Segregation* (Chapel Hill, NC: University of North Carolina Press, 2009); Peter Baldwin, *Disease and Democracy: The Industrialized World Faces AIDS* (Berkeley: University of California Press, 2005); Geir Honneland and Lars Rowe, *Health as International Politics: Combating Communicable Diseases in the Baltic Sea Region* (Aldershot, Hants, England: Ashgate Pub., 2004); Elizabeth Fee and Daniel Fox, *AIDS: The Making of a Chronic Disease* (Berkeley: University of California Press, 1992).

⁴ Christopher Foreman, *Plagues, Products & Politics: Emergent Public Health Hazards and National Policymaking* (Washington: The Brookings Institution, 1996), 7-8.

⁵ The animal origin of SARS is not as clear and confirmed as that of Avian Influenza.

⁶ Andrew T. Price-Smith, *Contagion and Chaos: Disease, Ecology, and National Security in the Era of Globalization* (Cambridge, Mass: MIT Press, 2009).

⁷ Dennis Hoffman, *Asian Livestock to the Year 2000 and Beyond* (FAO-RAP Working paper series 1/2, Rome, 1999);

for a broader argument see M. L. Barreto, "Science, policy, politics, a complex and unequal world and the emerging of a new infectious disease," *Journal of Epidemiology and Community Health* 57, no. 9 (2003): 644-645.

⁸ An exception is the case studies of Thailand, Vietnam, Indonesia and Cambodia in Ian Scoones, ed., *Avian Influenza: Science, Policy, and Politics* (London: Earthscan, Ltd., 2010). For a review, see MacKellar, "Pandemic Influenza: A Review."

⁹ For example, see Paul Tambyah and Ping-Chung Leung, eds., *Bird Flu: A Rising Epidemic in Asia and Beyond?* (Singapore: World Scientific Publishing, 2004); Institute of Medicine, *The Threat of Epidemic Influenza: Are We Ready?* (Washington: The National Academic Press, 2005); Nicholas Thomas, "The Regionalization of Avian Influenza in East Asia: Responding to the Next Epidemic (?)," *Asian Survey* 46, no. 6 (2006).

¹⁰ Grant Lewison, "The reporting of the risks from severe acute respiratory syndrome (SARS) in the news media, 2003-2004," *Health, Risk & Society* 10 (2008): 241-262; L. H. Chan, P. K. Lee, and G. Chan, "China engages global health governance: Processes and dilemmas," *Global Public Health* 4 (2009): 1-30; Tsung-Jen Shih, Rosalyna Wijaya and Dominique Brossard, "Media Coverage of Public Health Epidemics: Linking Framing and Issue Attention Cycle toward an Integrated Theory of Print News Coverage of Epidemics," *Mass Communication and Society* 11 (2008): 141-160; Haishan Yu, "Talking, Linking, Clicking: The Politics of AIDS and SARS in Urban China," *Positions: East Asia Cultures Critique* 15 (2007): 35-63; Deborah Davis and Helen Siu, eds., *SARS: Reception and Interpretation in Three Chinese Cities* (New York: Routledge, 2007); Arthur Kleinman and James Watson, eds., *SARS in China: A Prelude to Epidemic?* (Stanford: Stanford University Press, 2006); Mely Caballero-Anthony, "SARS in Asia: Crisis, Vulnerabilities, and Regional Responses," *Asian Survey* 45, no. 3 (2005): 475-495; David P. Fidler, *SARS: Governance and the Globalization of Disease* (New York: Palgrave Macmillan, 2004); John Wong and Yongnian Zhang, eds., *The SARS Epidemic: Challenges to China's Crisis Management* (Singapore: World Scientific Publishing, 2004); Christine Loh, *At the Epicentre: Hong Kong and the SARS Outbreak* (Hong Kong: Hong Kong University Press, 2004).

¹¹ For example, see Stella R. Quah, ed., *Crisis Preparedness: Asia and the Global Governance of Epidemics* (Stanford: Shorenstein Asia-Pacific Research Center, 2007); Jesper Gronvall, "Mad Cow Disease: The Role of Experts and European Crisis Management," in *Managing Crises: Threats, Dilemmas, Opportunities*, eds. Uriel Rosenthal, R. Arjen Boin and Louise Comfort (Springfield, Ill.: Charles Thomas, 2001); see also Foreman, *Plagues, Products & Politics*.

¹² For example, see Elbe, "Our epidemiological footprint"; Sarah Dry, *Epidemics for All? Governing Health in a Global Age* (STEPS Working No. Paper 9, Brighton, UK: STEPS Centre, 2008); Mark W. Zacher and Tania J. Keefe, *The Politics of Global Health Governance: United by Contagion*. (New York: Palgrave Macmillan, 2008); and Fidler, *SARS: Governance and the Globalization of Disease*. An exception is Scoones, ed., *Avian Influenza: Science, Policy, and Politics*, which analyzes politics of Avian Influenza at the local, national, and global levels. For a criticism of the literature for neglecting the role of states in international framework for disease control, see James Ricci, "Global Health Governance and the State: Premature Claims of a Post-International Framework," *Global Health Governance* 3, no. 1 (Fall, 2009): 1-18.

¹³ Foreman, *Plagues, Products & Politics*, 2 offers a different scheme based on five broad and overlapping tasks facing policymakers: outbreak discovery, field investigation, field intervention, the regulation of products and processes, and biomedical research.

¹⁴ Constance Nathanson, "Disease Prevention as Social Change: Toward a Theory of Public Health," *Population and Development Review* 22, no. 4 (1996): 617-621.

¹⁵ *Ibid.*

¹⁶ Varun Gauri and Evan Lieberman, "Boundary Institutions and HIV/AIDS Policy in Brazil and South Africa," *Studies in Comparative International Development* 41, no. 3 (2006): 47-73.

¹⁷ Baldwin, *Disease and Democracy*, 11-13.

- ¹⁸ Varun Gauri and Peyvand Khaleghian, "Immunization in Developing Countries: Its Political and Organizational Determinants," *World Development* 30, no. 12 (2002): 2109.
- ¹⁹ J. A. T. Granados, "Politics and health in eight European countries: A comparative study of mortality decline under social democracies and right-wing governments," *Social Science & Medicine* 71, no. 5 (2010): 841.
- ²⁰ Nathanson, "Disease Prevention as Social Change," 624.
- ²¹ Gauri and Lieberman, "Boundary Institutions and HIV/AIDS Policy in Brazil and South Africa," 56-57.
- ²² Nathanson, "Disease Prevention as Social Change," 614-615.
- ²³ For example, see Roberts, *Infectious Fear: Politics, Disease, and the Health Effects of Segregation*; Laura Eichelberger, "SARS and New York's Chinatown: The politics of risk and blame during an epidemic of fear," *Social Science and Medicine* 65, no. 6 (2007): 1284-1295; Marcos Cueto, *Cold War, Deadly Fevers: Malaria Eradication in Mexico, 1955-1975* (Washington, D.C.: Woodrow Wilson Center Press, 2007).
- ²⁴ Gauri and Lieberman, "Boundary Institutions and HIV/AIDS Policy in Brazil and South Africa," 47.
- ²⁵ Of course, there are other factors. For example, see Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (New York: Cambridge University Press, 1999) for the role of historical precedents; Gauri and Khaleghian, "Immunization in Developing Countries: Its Political and Organizational Determinants," for that of global policy environment and contacts with international agencies. For the role of foreign aid, see Scoones, ed., *Avian Influenza: Science, Policy, and Politics*; and for the importance of international politics, see Cueto, *Cold War, Deadly Fevers*. I do not examine historical precedents here because these events in developing countries are difficult to evaluate for lack of data. Global policy environment and international politics were nearly identical for the three case studies in this paper, while the role of foreign aid for a nearly identical set of cases has been examined in Scoones, ed., *Avian Influenza: Science, Policy, and Politics*.
- ²⁶ Baldwin, *Contagion and the State in Europe*, chapter 3.
- ²⁷ This was the situation in China when the SARS outbreak occurred. See Yongnian Zheng and Lye Liang Fook, "SARS and China's Political System," in Wong and Zhang, eds., *The SARS Epidemic: Challenges to China's Crisis Management*; and Tony Saich, "Is SARS China's Chernobyl or Much Ado about Nothing?" in Kleinman and Watson, eds., *SARS in China: A Prelude to Epidemic?*
- ²⁸ Priscilla Wald, *Contagious: Cultures, Carriers, and the Outbreak Narrative* (Durham, NC: Duke University Press, 2008).
- ²⁹ *Utusan Malaysia* [Malaysian Affairs], November 21, 1998.
- ³⁰ Interview, Putrajaya, December 8, 2005.
- ³¹ *Berita Harian* [Daily News], November 25 and 28, 1998.
- ³² *New Strait Times*, January 7, 1999.
- ³³ For a technical description of the virus and the disease, see M.N. Mohd Nor, C.H.Gan, and B.L. Ong, "Nipah virus infection of pigs in Peninsular Malaysia," *Rev Sci Tech* 19, no.1(2000):160-5.
- ³⁴ Fogging and vaccination against JE were useless simply because the virus was not JE and not transmitted through mosquitoes but through direct contact with infected pigs.
- ³⁵ Recently, the power of BN has weakened with electoral victories of a coalition of opposition parties, including the People's Justice Party led by Anwar Ibrahim.
- ³⁶ Harold Crouch, *Government and Society in Malaysia*. (Ithaca, NY: Cornell University Press, 1996), 56.
- ³⁷ The Minister of Health told his staff that all dissemination of information to the public had to be approved in advance by their seniors (*Berita Harian*, February 25, 1999). See also Abd. Jalil Ali, "Mengapa Kita Lambat dan Lembab Menangani Masalah JE? [Why are we so slow and clumsy in dealing with the JE problem?]" *Dewan Masyarakat* [People's Forum] (April, 1999): 66; and interview of Dr. Chan Chee Khoo, "A Local Response to Disinformation," *Aliran Monthly* (May 3, 1999).
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- ³⁹ *Utusan Malaysia*, April 12, 1999.
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- ⁴² "State List," Constitution of Malaysia.

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- ⁴⁴ *Utusan Malaysia*, January 10 & 13, 1999.
- ⁴⁵ *The New Straits Times*, February 19, 1999.
- ⁴⁶ *Utusan Malaysia*, February 17, 1999.
- ⁴⁷ *Utusan Malaysia*, April 3, 1999.
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- ⁴⁹ Charles Hirschman, “The making of race in colonial Malaysia: political economy and racial ideology,” *Sociological Forum* 1, no. 2 (Spring 1986): 330-361.
- ⁵⁰ Crouch, *Government and Society in Malaysia*, 152-176.
- ⁵¹ Lim Teck Ghee, Alberto G. Gomes and Rahman Azly, *Multiethnic Malaysia: Past, Present, and Future* (Kuala Lumpur, Malaysian Institute of Development and Asian Studies, 2009); Hari Singh, “Ethnic Conflict in Malaysia Revisited,” *Commonwealth and Comparative Politics* 39, no. 1 (2001): 42-65.
- ⁵² Abd. Jalil Ali, “Jangan Tunggu Sehingga Bom Jangka Meletup!” [Don’t wait until this time bomb explodes!] *Dewan Masyarakat* (June 1999): 66.
- ⁵³ *Utusan Malaysia*, April 1, 1999.
- ⁵⁴ Several Chinese social organizations sent a joint memorandum to the government and staged a peaceful demonstration outside the Health Ministry (*Utusan Malaysia*, March 24, 1999).
- ⁵⁵ *Far Eastern Economic Review*, April 1, 1999, 29.
- ⁵⁶ *Aliran Monthly*, April 1999, 2.
- ⁵⁷ Interview, Kuala Lumpur, December 6, 2005.
- ⁵⁸ For example, see *The Star*, December 9, 2005, 30.
- ⁵⁹ *Utusan Malaysia*, September 4 & 5, 2007.
- ⁶⁰ Interview, Kuala Lumpur, December 2, 2005.
- ⁶¹ *The Nation*, January 16 & 23, 2003.
- ⁶² *The Nation*, February 1, 2004.
- ⁶³ *The Nation*, March 15, 2004.
- ⁶⁴ *Bangkok Post*, July 5, 2004.
- ⁶⁵ *The Nation*, July 16, July 17, & September 26, 2004.
- ⁶⁶ *The Nation*, February 1, 2004.
- ⁶⁷ Interviews, Bangkok, November 15 and 16, 2005.
- ⁶⁸ *The Nation*, January 28, 2004.
- ⁶⁹ Jasper Goss, David Burch and Roy Rickson, “Agri-Food Restructuring and Third World Transnationals: Thailand, the CP Group, and the Global Shrimp Industry,” *World Development* 28, no. 3 (2000): 515-516.
- ⁷⁰ About one-third of CP Group revenues came from CP Foods, a CP Group subsidiary, and one-third of CP Foods’ revenues came from chicken sales (half from exports, half from domestic sales). See *The Nation*, January 23, 2004.
- ⁷¹ *Financial Times*, February 5, 2004
- ⁷² *Ibid.*
- ⁷³ *The Nation*, January 17, 2004.
- ⁷⁴ *Multinational Monitor*, March/April 2006, 10-13.
- ⁷⁵ *The Nation*, July 16, 2004.
- ⁷⁶ *The Nation*, February 4, 2004.
- ⁷⁷ *The Nation*, February 1, 2004.
- ⁷⁸ *Business Week*, February 9, 2004.
- ⁷⁹ *Bangkok Post*, January 29, 2004.
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