

Examining Sovereignty in Global Disease Governance:

Surveillance Practices in United Kingdom, Thailand and Lao People's Democratic Republic

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Declaration

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

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Statement 1

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Abstract

In the post-SARS era, we have witnessed the development of a multi-actor framework for disease control, global disease governance. This framework includes states, international organisations, non-governmental organisations and many others besides. Their actions have been codified in international law (International Health Regulations 2005) and through increasing normative understandings of global disease control. However, decisions about how to manage an outbreak remain a sovereign prerogative. This thesis considers the tensions that might occur between the normative and legislative goals of global disease governance and state conceptions of sovereignty.

Sovereignty has, to date, been considered an analytical given in global health, and it is often used as an explanation for a state's lack of compliance with global disease governance, without further consideration. However, as this thesis will show, sovereignty is not exogenous to the system of global disease governance, but it finds new meaning in this health context, which is produced through interaction between states and non-state actors at the international and global levels.

This thesis considers the tensions between sovereignty and global disease governance in three case study states, the United Kingdom, Thailand and Lao People's Democratic Republic. Through empirical analysis, it will show when states embody the ideals of global disease governance, and when they prioritise their sovereign demands. Through this, a more considered understanding of sovereignty will be shown, depending on context, allowing states to reinterpret what sovereignty means to them in global disease control.

List of Abbreviations

ACD – Asian Cooperation Dialogue
ACMECS – Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy
ADB – Asian Development Bank
AFRIMS - Armed Forces Research Institute of Medical Sciences (USA)
APEC – Asia-Pacific Economic Cooperation
APSED – Asia Pacific Strategy for Emerging Diseases
ASEAN –Association of South East Asian States
BEID – Bureau of Emerging Infectious Disease (Thailand)
BHDMP – Border Health Development Master Plan
BOE – Bureau of Epidemiology (Thailand)
BSE v CJD – Bovine Spongiform Encephalopathy variant Creutzfeldt–Jakob disease
CIDRAP - Center for Infectious Disease Research and Policy (University of Minnesota)
CLV – Cambodia, Lao PDR, Vietnam
DDC – Department of Disease Control
DFID – Department for International Development (UK)
ECDC – European Centre for Disease Prevention and Control
ECOWAS – Economic Community of West-African States
EU – European Union
EVD – Ebola Virus Disease
EWARN – Early Warning Alert Report Network
FCO – Foreign and Commonwealth Office
FCTC – Framework Convention on Tobacco Control
FETP – Field Epidemiology Training Programme
GDDER – Global Disease Detection and Emergency Response (US-CDC)
GDG – Global Disease Governance
GISRN – Global Influenza Surveillance and Response Network
GOARN – Global Outbreak Alert and Response Network
GPHIN – Global Public Health Intelligence Network
HIV/AIDS – Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
HM Government – Her Majesty’s Government (UK)
HPA – Health Protection Agency (ceased 2013)
ICISS – International Commission on Intervention and State Sovereignty
IFRC – International Federation of the Red Cross and Red Crescent Societies
IHR – International Health Regulations
ILI – Influenza like Illness
IRC – International Rescue Committee
ISC – International Sanitary Conference
Lao PDR – Lao People’s Democratic Republic
LPRP – Lao People’s Revolutionary Party

MBDS – Mekong Basin Disease Surveillance Network
MEDISYS – Medical Information System
MERS-CoV – Middle Eastern Respiratory Syndrome – Coronavirus
MoD – Ministry of Defence (UK)
MoH – Ministry of Health (Lao PDR)
MOPH – Ministry of Public Health, (Thailand)
MOSH – Ministry of Sanitation and Health (Sierra Leone)
MOU – Memorandum of Understanding
MSF - Médecins Sans Frontières
NAHICO – National Avian and Human Influenza Coordinating Office (Lao PDR)
NCCDC – National Committee for Communicable Diseases Control (Lao PDR)
NCLE – National Center for Laboratory and Epidemiology (Lao PDR)
NEIDCO – National Emergency Infectious Disease Coordinating Office (Lao PDR)
NFP – National Focal Point
NGO – Non-Governmental Organisation
NHS – National Health Service
NHSO – National Health Security Office
NRR – National Risk Register, (UK)
OCHA – Office of Coordination for Humanitarian Emergencies
PHE – Public Health England
PHEIC – Public Health Emergency of International Concern
PoE – Point of Entry
R2HC – Research for Health in Humanitarian Crises
R2P Responsibility to Protect
RCGP – Royal College of General Practitioners
SARS – Severe Acute Respiratory Syndrome
SRRT – Surveillance and Rapid Response Teams
UK – United Kingdom
UN – United Nations
UNAIDS – Joint United Nations Programme on HIV/AIDS
UNICEF – United Nations Children’s Fund
UNDP – United Nations Development Programme
UNMEER – United Nations Mission for Ebola Emergency Response
UNSC – United Nations Security Council UNSIC – United Nations System Influenza Coordination
US – United States
USAID – United States Agency for International Development
USAID-CIDI – United States Agency for International Development – Center for International Disaster Information
US-CDC – United States – Center for Disease Control and Prevention
USDHHS – United States Department for Health and Human Services

VHV – Village Health Volunteers
WHA – World Health Assembly
WHO - World Health Organisation

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Chapter One: Introduction

Throughout the journey of writing this thesis the world has been witness to a flurry of infectious disease outbreaks. In 2011 H5N1 was rampaging through Southeast Asia, 2012 saw the emergence of Middle Eastern Respiratory Syndrome –Coronavirus (MERS-CoV), bearing considerable similarities to Severe Acute Respiratory Syndrome (SARS), which had caused considerable panic a decade previously, and was the catalyst for considerable swathes of international and global activity referred to within the next chapters. 2013 showed murmurings of a new influenza like illness (ILI) (H7N9) and perhaps most notably in the last four years was the outbreak of Ebola Virus Disease (EVD) in West Africa (2014-5). This is not an exhaustive list of all outbreaks that have occurred in the past four years, neglecting more localised outbreaks such as measles in South Wales as a result of poor vaccine confidence and an alarming resurgence in cases of poliovirus in parts of war torn Syria and Pakistan. However, what these outbreaks have in common is their potential global impact and the global response to them.

1.1 Life-cycle of an outbreak

Decisions about who should respond to an outbreak are inherently political, and what this thesis will fundamentally analyse. However, first of all it is important to understand how a disease outbreak evolves, so that the different surveillance and response mechanisms and actors can be analysed. Taking just one example of an infectious disease, that of EVD (2014/5), it is possible to see the political and global tensions which emerge when dealing with an outbreak. First and foremost, the outbreak was first detected by the international community through a digital disease surveillance provider, HealthMap, detecting rumours of an unusual health event in Guinea on 19th March 2014. As with most contemporary outbreaks, this rumour emerged prior to the Ministry of Health notifying the WHO (on 23rd March 2014) under the International Health Regulations (2005) (IHR).

The World Health Organisation (WHO) has been heavily criticised for their part in failing to handle EVD in a timely manner. Article 2 of the WHO's constitution states that it is the '*directing and co-ordinating authority on international health work*' (WHO 1946). As such it may be assumed that WHO has a responsibility to limit the outbreak's spread. Initially, the WHO sent teams to the field to provide technical support (their largest deployment of

epidemiologists to date) and eventually the organisation declared the outbreak to be a Public Health Emergency of International Concern (PHEIC) (WHO 2014). The PHEIC announcement issued technical guidance to the affected states and other actors relating to what measures should be undertaken to manage the outbreak, whilst limiting any impact on international trade and travel. As the framing of the outbreak moved from that of a health crisis to humanitarian disaster, this encouraged and enabled further involvement from the international community (Kamradt-Scott et al 2015). Importantly, the UN Security Council (UNSC) declared the outbreak to be a 'threat to international peace and security' (UNSC 2014) encouraging further actors to the response, including the UN Office for the Coordination of Humanitarian Affairs (OCHA), African Union, Economic Community of West African States (ECOWAS), European Union (EU), G7, and the creation of a new UN body, United Nations Mission for Ebola Emergency Response (UNMEER)

This outbreak has also seen a series of Non-Governmental Organisations (NGOs) involved in the surveillance, diagnosis and treatment of those infected with the disease, including Médecins Sans Frontières (MSF), the International Red Cross (IRC), and Save the Children. Furthermore, there has been increasing involvement of academic institutions in the response, such as Kings Health Partners and Institut Pasteur. Finally, states were involved with the outbreak. The increasing importance of all governments in global disease control over the past decade has been unprecedented and stands to show that health, and in particular the threat of infectious disease, is now a matter of high politics, no longer relegated to soft negotiations and chronic underfunding. As highlighted by Fidler (2004:45), *"the previously obscure and neglected areas of public health shed obscurity and neglect to become the subject matter of intense national and homeland security, foreign policy and global governance debates"*. In the case of EVD, Guinea, Sierra Leone and Liberia all activated their national emergency committees (WHO 30th March 2014) and implemented responses including shutting their international borders, welcoming the aforementioned actors to support their efforts, and restructured public health activity to limit further transmission of the disease. These states may understand that they have a sovereign responsibility to ensure, where possible, that their population is protected from disease, as well as a growing responsibility they may feel to ensuring that it does not spread further. This thesis seeks to understand how states understand the threat of disease, and their role

amid these multiple actors in global disease governance (GDG). Accordingly, this thesis seeks to contribute to the understanding of sovereignty in global health literature, an area that has to date had little discussion. Consequently, the central work of this thesis is to examine to what extent do state conceptions of disease surveillance and sovereignty challenge the framework of GDG? (p.18)

It was not only West-African states that played a role in containing the EVD outbreak, but Western states played a prominent role also. The United States (US), United Kingdom (UK) and others launched efforts including military support, public health technical services and financing for the outbreak (White House 2015, Her Majesty's Government UK (HM Government) 2015b). There have been several suggestions identifying why Western states concerned themselves in this outbreak, predominantly linked to differing conceptions of security. The next section of this introduction explores this in more detail to understand the connection between disease and security, providing a conceptual basis for this thesis.

1.2 Security

This thesis is not about health security per se, but several of the conceptual and empirical assumptions are grounded in security literature. Health and security have been increasingly linked over the last decade. Taylor (2004:501) argues that linking health to security gives this combination a central place in international relations. Traditionally security studies focused on the 'high-politics' of military security during the Cold War years, reflecting geopolitical rivalry and balance of power (McCormack 2008). However, as McInnes highlights (2015:7) following the 'bonfire of certainties' at the end of the Cold War, the security discourse considered broader security risks. These new security challenges included climate change, access to resources such as water and food, energy concerns, transnational crime and notably health. Rushton (2011) suggests that there are three characteristic claims that can link health with security. Firstly (and the focus of this thesis), the fast moving nature of emerging infectious diseases in a globalized world pose a threat to individuals, populations and states. Secondly the bioterrorism concern of weaponising pathogens, and thirdly the potential for severe burden of disease to have social, political and economic impacts threatening state and regional security.

Infectious disease has been continually framed as a security threat (McInnes and Lee 2006, Fidler and Gostin 2008, Elbe 2010, Davies 2008, Price-Smith 2009). Infectious disease can be seen as a security threat as it presents a direct threat to the power of the state eroding prosperity, destabilizing the relations between state and society, rendering institutions sclerotic, fomenting intrastate violence, and ultimately diminishing the power and cohesion of the state (Long 2011: 4). However, only some infectious diseases threaten security. Price-Smith (2009:3, Price-Smith 2002: 15) suggests the criteria are based on lethality, transmissibility, fear and economic damage, highlighting the difference between sudden outbreak events, and diseases of attrition that do not have the same securitizing ability¹.

Harrison (2004) argues that infectious diseases have been conceived as a security threat since the convocation of the first International Sanitary Conference (ISC) in 1851, where states agreed terms for quarantine to limit the impact that cholera had on trade (ISC 1851). These conferences focused on diseases that posed a risk to industrialised Europe, and can be seen as an anachronistic vision of the prioritization of certain diseases in contemporary global health. Furthermore, historical experience indicates that populations react to a disease outbreak without regard to science, and governments have similarly responded in a manner contrary to public health principles (Enemark 2009) evidenced by the outbreak of Plague in India (1994), SARS (2003), Swine Flu (2009) and EVD (2014/5).

As has been often quoted, security is an essentially contested concept that generates unsolvable debates about its meaning and application (Buzan 1991:7), in that the referent object of the threat can vary depending on who is using the term security and for what means. Aldis (2008) shows that this varied understanding of security is no different when used in relation to health, in which he suggests the concept has been widely used, but rarely adequately defined. Disease can be a threat to individuals (human security), the state (national security) or the global population (global security), as well as further framings possible too. The majority of such literature is based on the Copenhagen School framework

¹ Furthermore, securitization of infectious disease, although it creates political priorities, it often does this at the expense of other pressing concerns that are not securitized (such as non-communicable diseases etc.) (Davies:2010:135). As Enemark (2009) highlights security is the opposite of politicization, and removes the issue from the normal bargaining process of politics and it could in some instances challenge political decision making and commitment.

as heralded by Buzan and Waever (1998). They would view infectious disease as an existential threat to the referent object of the state by the securitizing actor (international community / media) which then generates endorsement of emergency measures beyond rules which would otherwise bind. An emerging consensus, which this thesis takes at its core, is that an outbreak of infectious disease would constitute a threat to national security. Therefore support for health security has become a stronger feature in the national policy of states (McInnes and Lee: 2006:7).

This link between disease and security has firmly been incorporated into contemporary discourse of global health. In academia, considerable discussion has followed relating to how these concepts are linked (McInnes and Lee 2006, Elbe 2010, Enemark 2007, Davies 2008, McInnes and Lee 2012, Price-Smith 2009). Similarly in global policy, this is most clearly manifested through the UN Security Council's Resolution 1308 (2000) which considered Human Immunodeficiency Virus Infection/ Acquired Immune Deficiency Syndrome (HIV/AIDS) a threat to international peace and security. Reflecting this discourse, the UN Secretary General High Level Panel on Threats, Challenges and Change (2004) underscored this notion and the WHO's World Health Report 2007 centred around global public health security in the 21st Century. The incorporation of security language can be considered to be of critical importance to how diseases have been governed globally, and represent a change in the discourse for activity for global actors (Curley and Herington 2011). This discourse of security will be paramount in understanding how states implement disease control measures, dependent on their understanding of their sovereignty and security, as will be shown through the case studies.

However, as stated by Rushton (2011) health security has effectively been (and will continue to be) defined through practice and not some separate process of definitional negotiation. The way in which this security is defined shapes an understanding of what is perceived as significant, in a particular construction which privileges certain interests over others, which in turn privileges certain policy responses (McInnes and Lee 2012:62). Interestingly, despite a unanimous rhetoric of global health security, what is seen in practice seems to have much more in common with traditional ideas of national security (Rushton 2011). This focus on national security is shown in the case studies examined in this thesis. As Youde (2012: 132)

and Zacher and Keefe (2008) observe, the framing of disease as a security threat affects how the global health community responds to outbreaks and the sort of interventions initiated. As such, it is vital to understand the way states understand security, and what the referent object of the threat is, to understand the manner in which they approach disease control. The US recognise that infectious disease in foreign countries could affect US national interests (United States Department for Health and Human Services (USDHHS) 2009, Fidler 2004b). The Australian treasury has stated that a potential outbreak could cause a recession about half the size of the great depression (Hartcher and Garnaut 2006). Importantly for this thesis, the UK states that poor health is an economic and political threat to all countries (Department of Health 2009, (HM Government 2011, UK Cabinet Office 2015) and Thailand has understood the security threat posed by disease to such an extent that they established the National Office of Health Security (NHSO) in 2002.

The rhetoric remains at a global level, and states act to ensure global health security, however the reality is often very different with states acting to protect their own national interests from the threat of disease. Moreover, the national security that is threatened by disease is increasingly not traditional state security in terms of territorial borders, but increasingly economic security. This becomes apparent on examination of the financial losses of \$1.3Billion in India after the plague outbreak in 1994 (McDonald: 1994), the loss of £3.5Billion in the UK following the Bovine Spongiform Encephalopathy variant Creutzfeldt–Jakob disease (BSE) crisis (Atkinson 1999) and the significant impact on the poultry industry in Thailand caused by H5N1 (p.166).

A further divide that is becoming increasingly evident in debates around health security, is that between the global north and global south. As will be shown, the security that is protected through the rhetoric of global health security is that of Western states (p.253). Although Rushton (2011) suggests that it should be no surprise that a global system designed to protect states from disease privileges the protection of the most powerful states in the international system, this thesis offers further empirical study supporting such a view. Through analysis of disease control in UK, Thailand and Lao People's Democratic Republic (Lao PDR), it appears that the global surveillance system developed to protect global health security often manifests itself with a binary divide between the infected global

south posing a threat to the uninfected Western states. This is in spite of apparent moral issues and colonial assumptions over backwards customs and unsanitary conditions that this practice suggests (Leach and Dry 2010)

1.3 Assumption of globalisation

Similarly to the previous section on security, this thesis is premised on a series of assumptions of how the world has changed as result of the globalisation process and infers that, both as a perspective on world politics and as a functional approach to global problems must be considered with global approaches. This includes disease control, which now requires a global approach to combat any outbreaks.

Trade, financial capital, resources, pollutants (and importantly pathogens) freely move anywhere in the world in a number of hours. As the temporal and spatial dimensions of threats to the state have changed, so too must states work to develop global response mechanisms to global issues. The unprecedented growth in trade and travel in recent decades means that an infection in Thailand today could be anywhere in the world tomorrow. Infectious diseases do not adhere to the rules of Westphalian states; the cliché rings true that pathogens do not respect international borders and they can pose a threat to any state globally. Even diseases that in public health terms are not a threat may still be perceived to be a threat. For example, EVD would never really be a threat to the UK, due to enhanced infection control protocols, yet the UK perceives it to be so. As such, the threat posed by infectious disease is now perceived as universally relevant. Moreover, the ability of infectious disease to destabilize societies, so alarmingly demonstrated by HIV/AIDS has brought home the message that local infectious disease problems can have global security implications (Kindhauser 2003). Elbe (2010: 31) argues that one of most significant changes to microbial anxiety is the expansion of civilian air travel. He suggests that it has compressed time and space making Western governments more vulnerable to the spread of previously localised disease.

As a consequence of globalisation, two factors have become commonplace to the framing of infectious disease control, each of which is important to understand before proceeding with the thesis. Firstly, in a globalised world, no single state can manage the threat of infectious disease on its own. It has been a common misconception that individual states can turn

themselves into a fortress against pandemic influenza by closing their borders (Enemark 2009) either directly or indirectly by ceasing international trade or travel. Although such an approach was witnessed during EVD, these efforts tend to be a political necessity, driven in an effort to reassure the public that the government is able to handle the threat posed. Secondly, there is a growing need to provide a response to combat global problems that is equally global. The global health community has started to view the globe as a single place within which boundaries of the interstate system and nation state have been eroded (Lee 2003: 138). Roth (2006) states that there is no single institution or agency that has the capacity to approach and tackle emergencies posed by infectious disease. Similarly the UK Department of Health argues that a national perspective on health policy is inadequate to deal with the complexity of infectious diseases, and that truly '*Health Is Global*' (2011). As such, the governance of an outbreak moves beyond the state, and involves a series of other actors, including international organisations, non-governmental organisations, academic institutions and individuals. This multi-actor framework will be referred to herein during the thesis as global disease governance (GDG). This provides a core component of the analysis in this thesis seeking to understand the tensions that exist between this global level of disease control, which Youde (2012: 186) has suggested, has moved beyond a state-centric model of governance, and the domestic priorities for disease preparedness and response within the three case study states. A final point of note, in a globalized electronically connected world, it is almost impossible for states to conceal an outbreak of infectious disease. Although there may be cause to do so, in order not to threaten national and economic security, the same mechanisms which act as a medium for spreading disease, also allow others in the world to identify the source (WHO 2003:3). This insinuates that there is a global surveillance mechanism, both formally and informally which is able to readily detect outbreaks, and even hold states to account for their disclosure of disease. This globalised surveillance mechanism will remain a key theme of the thesis.

1.4 Sovereignty, Responsibility and Governance

However, this is not a thesis about (global) health security, or globalisation, this thesis looks at key issues of sovereignty, responsibility and governance and how these concepts appear in global infectious disease control. As such, the key problematic that this thesis seeks to consider is concisely raised by Heymann (2006: 353):

The SARS outbreak occurred in an interconnected world where new ways of working were already being established and current outbreaks of avian influenza and other infectious disease demonstrate a redefinition of national sovereignty as governments increasingly hold themselves accountable for appropriate responses to outbreaks of infectious disease by their own citizens and by the international community

This quotation reconciles the various issues at stake in this thesis. It assumes a certain expectation of globalization occurring (*in an interconnected world*). Furthermore, it shows that there are *new ways of working* on international disease control, which as has been shown above, are bound up with new understandings of security and new methods of surveillance, meaning that diseases are detected by many actors' surveillance systems simultaneously. However, it also raises three further concerns, those of innovative governance mechanisms (*new ways of working*), an understanding of how this governance may affect sovereignty (*a redefinition of national sovereignty*) and how this redefinition of sovereignty may increasingly entail a greater role for responsibility (*governments increasingly hold themselves accountable*) both to their own electorate and to the global population.

This thesis aims to assess the new globalised governance arrangements for infectious disease control, GDG, and see whether these concerns are redefining understandings of sovereignty and surveillance practices amongst three case studies; United Kingdom, Thailand and Lao PDR.

The central research question of this thesis therefore is:

To what extent do state conceptions of surveillance and sovereignty challenge the framework of GDG?

The aim of this thesis is to better understand how states, as sovereign actors, interact with and react to the norms and legislative goals of the global disease governance framework manifested through surveillance and response practices. As a normative project focused on global health security, the global infectious disease surveillance landscape and GDG regime prioritise global disease control over state sovereignty. This approach however, has not taken individual state conceptualisations of sovereignty and their position in the global

health mosaic into account, but has presumed that all states will sign up to this normative agenda willingly. The aim of this thesis, therefore, is to analyse how states' individual understanding of GDG is nuanced through different understandings of sovereignty.

To do this, the thesis will also engage with a series of sub-questions that will help to understand state conceptions of sovereignty and global disease governance. These shall be:

1. To what extent do states interact with normative and legislative expectations of GDG?
2. How do state's interpretations of sovereignty manifest within their disease control activities?
3. When do states comply with GDG and when do domestic sovereign priorities surpass global responsibilities?
4. What does this tell us about sovereignty in GDG?

This thesis aims to answer the research question in the first instance understanding the framework of GDG. It explores this multi-actor framework by understanding the normative and legislative changes to global disease control that have allowed such a globalised approach to combat disease. This thesis argues that, to a large extent, states have internalised the norms and legislation of the GDG framework into their disease surveillance and response activities. However, tensions have arisen where GDG requires these norms to be placed ahead of state sovereignty. By unbundling the concept of sovereignty, this thesis shows how states have redefined their sovereignty, where necessary, to appear to be compliant with the norms of GDG, and have asserted their sovereignty in opposition to GDG at other times. As such, sovereignty is understood in this thesis as a dynamic concept, which varies depending on context.

As will be shown (p.86), sovereignty can be understood in many ways. However, this thesis supports an understanding of sovereignty, which is not one concept, but a cluster of approaches, and that unlike has been suggested by traditional theorists, sovereignty is divisible. The manner in which it is most suitable to understand this divisibility is through highlighting Lake's (2003) conceptualisation of the differences between a state's internal and external sovereignty (p.88). Internal sovereignty refers to the control over and within a

given territory by a state, including their decisions about domestic affairs and use of authority. This is contrasted with external sovereignty, which recognises a state's formal international equality amongst other similar sovereign states, which can be seen through participation in international organisations, internalising global norms such as those of global disease governance (p.64) and ratifying international law, in this instance the IHR (2005) (p.58). However, this thesis develops this dual understanding of sovereignty one step further by incorporating this internal / external division with a constructivist reading. This constructivist approach highlights that in all its divisions, sovereignty is not an objective given, but is produced through interaction between actors, both externally through the global disease governance mosaic and internally with a state's citizens. As such, sovereignty does not exist independently of those who use it, and the concept is contingent upon context. It is this contextual importance which will explain the dynamic differences in understanding sovereignty that changes depending on societal, historic and economic situations such as evidenced in the three case studies; UK, Thailand and Lao PDR. However, one constant amid all understandings of sovereignty is the role of norms permeating sovereign understandings. One particular norm which becomes apparent through GDG is that sovereignty entails a sense of responsibility. However, again when approaching this understanding with a constructivist reading, it is apparent that states understand this sovereign responsibility in different ways, and therefore manifest their responsibilities in different ways, either prioritising their responsibility to the international community (external sovereignty) or to their own citizens (internal sovereignty).

1.5 Methodology

A case study methodology was chosen in order to be able to distinguish from generalizable trends and state specific decisions. The UK, Thailand and Lao PDR were chosen having different income and socio-economic status and different political structures. The World Bank classifies the United Kingdom as a High Income State, Thailand is considered a Middle Income State, and Lao PDR is classified as Lower Middle Income State (World Bank 2015, World Bank 2015b, World Bank 2015c). Moreover, the UK and Thailand are constitutional monarchies and liberal democracies, whilst Lao PDR is an authoritarian state. This was done to understand whether state income levels or political position impact upon surveillance capabilities, conceptions of sovereignty and engagement with GDG. The UK was selected

due to the UK's increasing role in GDG in recent years (p.152) as well as ease of access to policy documents and interviewees, due to the researcher's location. Furthermore, Thailand and Lao PDR were selected, as Southeast Asia is often considered as the hot zone of emerging infectious diseases (Coker et al 2006: 886). This is due to a multiplicity of factors including dense populations, rapid urbanisation and increased air travel. Interestingly, despite this modernisation, the region still maintains two key traditional practices for disease transmission; numerous live animal markets and considerable animal-human husbandry. Consequentially, it is thought that the next deadly global infection will likely start in this region, (although neither MERS-COV, EVD or H1N1 did).

A further justification for this choice of case studies used is the contrast between the global north and south. As suggested (p. 263) the GDG agenda focuses on diseases which pose a concern to Western states or those which are considered to be a potential threat. Therefore it was considered that it would be pertinent to contrast a state which is a driver of the normative goals of GDG, (such as the UK), with states that do not enjoy the same privileged power position in the global health mosaic (Lao PDR, and to a certain extent Thailand)². It was thought that these three case studies would make for an interesting comparison for considering sovereignty through analysis of their surveillance practices in GDG, due to their differing positions in the GDG mosaic.

The content of this thesis surmounts from a triangulation of primary and secondary data. The methods used for analysis took into consideration a range of factors based on the health policy triangle framework (Walt and Gilson 1994). These included the content of the document or speech, the role of the interview subject and their power position in their organisation, and most importantly, the context and purpose in which the material was produced. Moreover, the position of the actor producing the policy document and/or providing the interview in the GDG landscape was taken into account. This is particularly important when assessing sovereign responsibilities, as it is important to remember to whom each state feels accountable, and for what reason, as this may have a direct influence on their behaviour and their interpretation of sovereignty in different settings.

² It could be suggested that Thailand falls somewhere between the UK and Lao PDR in terms of influence in global health, in that it has managed to make some challenges to the status quo promoted by Western states (p 196).

The primary data collected came from three key areas; policy documents (at national, regional and international levels), analysis of key politicians/ public health official's statements where recordings or transcripts were available and conducting elite interviews with participants in the field of infectious disease control. Firstly, this thesis draws on an in depth analysis of policy documents, official statements, and other published materials from governments, international organisations, non-governmental organisations and other pertinent fora. As the policy environment is increasingly populated by complex cross-border, inter-organisational relationships (such as the GDG mosaic), with policies influenced by global decisions and domestic activity, it is important to include both state and non-state actors policy in the analysis (Walt et al 2008). Policy documents came from Ministries of Health and Communicable Disease Departments, the WHO, the World Health Assembly (WHA), donor agencies (such as United States Agency for International Development (USAID), Department for International Development (DFID)), Asian Development Bank (ADB), NGO reports and publications, and considerable information about digital surveillance came from the websites of surveillance organisations. All of the documents used were open access and sourced online for the most part, but some were provided in print format during the interview process. Secondly, discourse analysis was carried out on speeches and writings of key political figures, policy makers and public health leaders from the case study states and from GDG actors to analyse words such as 'sovereignty', 'responsibility' and 'surveillance'. Such findings were included as a second type of primary data for understanding how actors understand these larger theoretical concepts.

Therein, semi-structured interviews were conducted with policy makers, public health practitioners and other elite persons involved in global disease control. Interviews were undertaken to supplement and contextualise the information established in the policy documents identified. As policy can be written with broad terminology, reflecting the official position of a government or organisation, it was hoped that speaking to the individuals who either produced or work within such policy positions would be able to shed light on the decision making which went behind the policy production. Conducting these interviews also brought to light other policy documents that may have proved useful, but had been overlooked in the initial policy analysis. Interviews also provided information on gaps in the policymaking, or those, which did not have explicit, open-access documentation available.

This was particularly important in Thailand and Lao PDR where language acted as a significant barrier to accessing information. Over 70 elite interviews were conducted in 6 countries. The interviews were structured around the same list of questions, designed to engage participants in their area of expertise. This meant that the questions did vary to some degree, but covered the same core topics of surveillance practice, engagement with GDG and working with other actors.

The interviews were conducted during three different time periods. The first round of interviews took place at the WHO, Geneva from 17th – 21st September 2012. The second round of interviews took place in the UK between 24th September 2012 – 18th February 2013 at a series of institutions in the UK, including, but not limited to the Health Protection Agency (HPA) (now Public Health England (PHE)) and digital disease surveillance providers in the UK. The final round of interviews took place from 15th March – 2nd May 2013. These involved a series of locations; Thailand, Lao PDR, Cambodia, Vietnam and included officials from Ministries of Health, Development Organisations, Regional Disease Surveillance Initiatives and Non-governmental surveillance providers. Further interviews were conducted in 2012 and 2013 via telephone. Although this thesis focuses on three states (UK, Thailand and Lao PDR), interviews were also conducted in Cambodia and Vietnam. This was particularly important to understand the regional role that Thailand plays in disease governance, and the interconnected and cross-border working detected in both Thailand and Lao PDR. Although interviews conducted in these states allowed few inferences to be made about sovereignty, there were able to shed light on regional disease governance. Moreover, interviews were also conducted at the WHO (Geneva) to ascertain the global perspective of GDG and surveillance practices and state activity within this framework. This was done to offer an understanding of how GHG wants states to act, which could then be used as a comparison to how states understand their position within this framework themselves.

Identifying and arranging interviews with participants took different forms. Some individuals were identified through online searches for particular organisations and cold contacted directly to arrange interviews (WHO, HealthMap etc.). A second group of individuals were identified through snowballing from initial interviews, whereby their names were provided to me by a first interviewee, who suggested other colleagues who may be able to help my

research. These individuals were then contacted to ask for an interview, in order to ensure that they understand what was being asked of them as a research participant. A final group of interviewees were identified by 'gatekeepers' from particular organisations who were contacted, and who had arranged people for me to interview, based on their perception of who would be useful for the research. This latter group of individuals has methodological considerations which needed to be taken into account. It was not clear in some instances whether those with whom interviews were set up, were the best people for me to speak to within a particular organisation, or merely the individuals who front a particular agency and as such were the preferred contact. These interviews often did not provide relevant information used within this thesis. However, it is recognised that sometimes it is important to meet with these people in order to establish trust with an organisation, and to establish contacts through whom I could to meet others within the organisation through a snowballing methodology. Informed consent was obtained through a cover letter detailing the research, and a supplementary consent form which participants were requested to sign prior to the interview commencing. As the participants were being interviewed in their professional context, broader ethical concerns about asking for personal or sensitive information were not considered to be an issue. Nevertheless, in an effort for confidentiality of sources, participants' names have been anonymised, but their position and organisation have been included to understand their role in the global disease governance mosaic. Where agreed, these interviews were recorded and later transcribed. In those instances where participants did not wish to be recorded, research notes were written by hand. Research notes, audio recordings and transcripts of interviews were kept under a password-protected file on the researcher's computer and not shared elsewhere. The interview questions, information sheet and consent form are available in Annex A

These primary sources were then triangulated with secondary academic sources. These secondary sources came from academic literatures on global health, public health policy, health security, international relations, theories of sovereignty, surveillance and comparative politics. Such sources were identified through both the snowball effect from source references and citations, but also through search engine enquiries related to key terminologies used. These secondary sources were then used to provide the conceptual

framework for analysis of the case studies and to offer further nuance to the research findings.

1.6 Issues encountered

As with all pieces of research, this methodology is not without its issues, which need to be reflected on to fully understand the potential for this thesis to make a contribution to the growing field of global health in international relations.

A first concern when analysing the same content across three case studies, looking to compare them in a rigorous and comprehensive manner has been the quantity of data available in English. The UK government has a considerable number of policy documents which refer to infectious disease control and the UK's response to any outbreak domestically and their international role in GDG. This quantity of policy documents was not replicated for Thailand and Lao PDR, leading to gaps in the data collected. This is due to either such parallel policies not existing, or that they were published solely in Thai or Lao and therefore inaccessible to a non-native speaker. As such, any mis-interpretation of the data available, as a consequence of the gap in resources used, is entirely my fault. This is especially true of Lao PDR, which has very few documents relating to surveillance, infectious disease control and GDG. In this instance, interviews helped to ensure that this lack of data did not lead to a bias in interpretation. Through interviewing policymakers in Lao PDR and Thailand, comparative policies and practices could be identified verbally and gaps where they occurred could be analysed.

This disparity in data available is also evident in the number of interviews conducted for each of the case studies. Whilst both the UK and Thailand have large public health departments with staff working in disease control, this is not the case in Lao PDR. The Department for Disease Control in Lao PDR consists of three people³. Although two of these were interviewed as part of the research, as were others who work in disease control in other capacities within the state such as provincial level epidemiologists, and those working at the WHO country office or ADB, this does leave an issue of completeness of data. Furthermore, as many resources as possible were obtained in Lao PDR both in terms of

³ This was evidenced through visiting the Department for Disease Control and being only 3 people in the office, which was confirmed in discussion with research participants.

policy documents and interviews, but the sheer difference of quantity (and quality) of this data, when using it for comparative purposes is evident. Whilst this may, in fact, reflect the realities of state disease control (in that there is not a big public health infrastructure) it has impacted the ability to draw truly comparable comparisons. To minimise any unintended researcher bias of interpretation, the data collected was carefully considered in light of the secondary literature obtained relating to Lao PDR both in its political context and public health provision, to recognise similar themes which may emerge in the data collected for this thesis.

Language also proved a potential to cause research bias during the interviewing process. A considerable number of the interviews were conducted with those who were not native English speakers. This was considered prior to the interview process, and it was decided that due to the level of career and role in international work of those interviewed, that interviews would be able to be conducted in English without a translator. Although this is the case, and valuable information was obtained from interview informants, some of the nuances of what individuals said were conceivably missed. This may have led to misinterpretation or incorrect analysis of the data in the secondary stage of the project, for which I accept responsibility.

A final concern for the research outcome is the nature of the development of the thesis itself. When this project started, the focus was to examine the role of digital disease surveillance and its impact on national surveillance practices. Whilst such questions are covered in the content and analysis herein, the central question at the heart of this thesis has moved on to consider issues of governance, sovereignty and responsibility, with the focus being on states, rather than on digital disease surveillance providers. This development of the focus of the thesis came through the research process and analysis of data. It became apparent that the issue of digital disease surveillance and its potential impact on national or global disease control represented a microcosm of the bigger issues at hand in disease surveillance; the tension between global norms of GDG and sovereignty. Several assumptions which had been made for the basis of the research initially- that states feel coerced to report diseases more if there is open access to the data online, and that digital disease surveillance actors represent a thorough departure from the main provisions of disease control (Annex A) - were found to be unsubstantiated from the data collected. As

such, the decision was made to redefine the focus of the research and the central research question to reflect the key issue identified through the initial policy analysis and interviews; sovereignty, surveillance and GDG. Whilst it is well established that the process of writing a PhD is a journey, and it is natural for ideas to develop as a consequence, this may have inherent issues with the research findings. One key aspect to this is the nature of the interview questions and the framing of the problem to interviewees. As can be observed from the list of questions used, these focused on digital disease surveillance. In essence, what this means is that the answers given have been re-considered to a slightly different research question. If the interviews were to be re-conducted now, there would have been different questions posed. Whilst there has not been as misappropriation of comments, the conceptualisation of the project at different stages may lead to concerns that data collected is now being shoe-horned into fitting the argument that this thesis seeks to make. To some extent, as an iterative process of research it should be expected that empirical findings will inform the conceptual understanding of the problem. Yet, the nature of the process also raises further concerns about the research methodology itself.

A final methodological concern with the research process was the position of the researcher undertaking the research. This was particularly important during the interview process. It is important to reflect both on the researcher's own outlook and interpretation of the data which they are being presented with, which is almost impossible to mitigate against, but also their role in the process of data collection. As a conduit to collect data through the process of interviews, my position as a female, British, a Caucasian, a research student and my age may have been taken into account by my research participants in their responses. There is no way of knowing how any of these factors may have influenced participant's openness or honesty in the responses provided, but must be considered as a potential factor. For example, would a male Thai or Laotian national receive a different response to some of the questions that were posed? Furthermore, for those people who I was put in contact with through a gatekeeper or colleague, there could have been concerns about whether they felt they had a choice in taking part in the process, and whether they could speak freely or had to represent the opinions of their seniors.

1.7 Defining Infectious Disease

Prior to starting the main analysis, it is important to define a couple of terminologies that will be used throughout the thesis. These are infectious disease and surveillance.

For the purpose of this thesis, an infectious disease shall be defined *“as caused by pathogenic microorganisms, such as bacteria, viruses, parasites or fungi; the diseases can be spread, directly or indirectly, from one person to another”* (WHO 2014c). A distinction should be made between communicable diseases and infectious diseases. All communicable diseases are infectious, but not all infectious diseases are communicable. Some infectious disease may cause high mortality (such as the EVD) and others will only infect one of two persons (such as rabies). Pathogenic differences between transmission and reproductive rate, will affect the potential for a disease to spread. Interestingly, it is not the diseases which are necessarily the most easily transmissible nor with the highest reproductive rates which are of most concern to the global population (i.e. the ones which could potentially do the most damage at a global level). In actual fact, diseases which pose the greatest concern are those which have the greatest level of uncertainty associated with them (Price-Smith 2009: 118). Enemark implies (2007:11) is not necessarily the pathogen that causes the risk, but the fear of the pathogen and the risk posed by it. For example, EVD is not easily transmitted, and it has a low reproductive number, yet it has been framed as a major global threat. Similarly, in hindsight, SARS did not have a high mortality rate in comparison to seasonal influenza, but it generated a disproportionate level of fear due to the lack of information about the disease, the uncertainty about means of transmission and there was no apparent cure (Enemark 2007).

New infectious pathogens have been discovered at a rate of one a year over the last two decades (Merianos and Peiris 2005: 1250) and now account for approximately one quarter of all deaths annually around the globe. Furthermore, the damage caused by an outbreak of pandemic influenza today could potentially kill anywhere between 2m and 12m people (Davies 2010: 137). Interestingly, rather than simply being a health concern, infectious diseases are being equated with economic destruction, political instability and depicted as a multi-polar threat to healthy populations worldwide (Peterson 2002). As a consequence, it is hardly surprising that infectious disease has been a major preoccupation of global health (McInnes 2011). Worthy of note also is that epidemics are often random events, often striking without warning, and it is this randomness which makes it all the more important

for states to be ready to respond effectively and collaboratively with the international community at a moment's notice (Youde 2010:27)

1.8 Surveillance

Using the terminology of the WHA (2005b: 58.3) surveillance can be defined as *“the on-going collection, collation and analysis of data for public health purposes and the timely dissemination of public health information for assessment and public health response as necessary”*. Furthermore, surveillance is often referred to as the corner stone of public health practice (Lee and Thacker 2011), as public health professionals need to know what disease threats their populations may face in order to launch a suitable response. As Youde (2010) and Foucault (1977) have established, the essence of a global surveillance system is in Bentham's idea of panopticism (Bentham and Bozovic 1995), in that effective surveillance emerges when individuals fear constant surveillance leading regional or national authorities to comply with GDG. This structure becomes particularly apparent with the involvement of non-state actors in a disease governance framework which includes increasing surveillance and allowing different groups to detect an outbreak occurring in a particular location.

The modern understanding of surveillance is taken from the work of Langmuir at the US - Centre for Disease Control (CDC). In his sentinel work, he separated the discipline of surveillance from other activities in public health and highlighted the importance of routine, systematic collection of pertinent health related data (Lee and Thacker: 2011). The breakthrough was the creation of the Epidemic Intelligence Service to act as an early warning system alerting policy officials before a disease got out of hand, and a refocusing on the role of aggregate data rather than individual cases (Youde 2010: 24). Although initially this was focused on USA, such practice has now expanded globally, to a lesser or greater extent depending on capacity. However, countries with pre-existing surveillance systems did not collect data in a uniform format, which has made it increasingly difficult to compare data between countries. For example, understanding risk factors for clinical disease severity was a high priority, but countries often grouped their data using different combinations of risk factors, which was difficult to disaggregate, representing a barrier to truly global surveillance (WHA: A64.10: 96).

Such surveillance has been replaced by a new mantra of *Early Detection, Rapid Response*

which represented a change in institutional thinking from 2000 onwards (Interview, Epidemiologist, WHO, 21st September 2012) and has become key to understanding contemporary disease surveillance. Global surveillance has been established to monitor for outbreaks of anything which could be *“any extraordinary public health event that constitutes a public health risk to other states through the international spread of disease, which potentially requires a coordinated international response”* (WHO 2005:9). Such outbreak verification is a new approach to global disease surveillance. Its aim is to improve epidemic disease control by providing accurate and timely information about disease outbreaks (Grein et al 2000). However, not all states are able to provide accurate and timely information about disease outbreaks to the same extent as each other, due to a lack of infrastructure and resources.

One of the key areas of WHO's work in disease control has been to tackle this capacity difference, emphasizing and encouraging collaboration between states to increase the collective capacity and surveillance infrastructure to respond to potential health emergencies and other public health risks (Rodier et al 2007). Despite this international pressure to upgrade surveillance and response capabilities in all countries, vast disparities are evident and the world appears decidedly unprepared for a global health scenario (Ingram in Pain and Smith 2008: 81). Fidler refers to this as the 'surveillance gap' that has developed between developed and developing countries (Fidler in Bashford 2006), not least because the West has poured vast resources into their national infrastructure, yet owing to globalisation any surveillance capabilities are only as good as the weakest part internationally. Thus, surveillance systems both nationally and globally have become of paramount importance to the control of infectious disease. One of the key entrepreneurs of the global surveillance infrastructure, David Heymann (2002:179) stated that there was a need to ensure global investment in epidemiology and laboratory facilities in poorer countries, and in doing so this would produce better surveillance capacity for all states. However, this requires all nations to recognise the security threat of infectious diseases in the same way, and moreover, have the political resources to act upon it (USAID 1998:1).

External donors often assume that developing countries want to implement surveillance systems, but simply lack the financial resources to do so. However, Calain (2007) highlights why states might actively try to resist implementing such surveillance practices, most

notably on account of the global community's surveillance needs and interests not lining up with the health needs and interests of the local population. As suggested by Velimirovic (1976: 479-80) *"The failure to report promptly need not be an arbitrary measure of a sign of misunderstanding the concept of surveillance; it is sometimes an unfortunate but necessary means of self-protection against irrational requirements imposed by other countries, which bring on the reporting country a severe penalty through loss in trade, tourism etc."*. Accordingly, states are aware that there is a relationship between surveillance capabilities and hegemonic security interests more generally. As Ingram highlights, the possession of privileged epidemiological intelligence would constitute a material advantage during health crises (Ingram in Pain and Smith 2008: 82). This being so, it has been argued (Weir and Mykhalovsky in Bashford 2006, Hardt and Negri 2000) that the politics of surveillance is not so much post-Westphalian as it is imperial.

The importance of surveillance has been verified by the fact that several Western states have set up or signed up to global surveillance efforts. Clinton's Presidential Decision Directive on Emerging Infectious Diseases (1996) highlighted the need for a coordinated effort amongst states for the protection of the American population against a range of infectious diseases. To this means, the DOD- GEIS (Department of Defence - Global Emerging Infections Surveillance and Response System) was established in 1998, set up to respond to outbreaks of epidemics, endemic and emerging disease (Chretien et al 2006:53)⁴. Public Health Agency of Canada established the Global Public Health Intelligence Network (GPHIN) (p.48). Similarly, the EU has seen the importance of monitoring infectious disease across its member states with the creation of the European Centre for Disease Control (ECDC) (ECDC 2015). Furthermore, this shift to globalize disease surveillance has also been linked to changes in trade patterns and economic activity, with several states wanting to orchestrate their surveillance efforts with neighbouring, trading and travel partners, rather than older geopolitical regional boundaries set forth by regional membership to WHO (Gresham et al: 2013).

States have recognized their primary role is to maintain global health security through

⁴ Important to note in this is that this network was created under the auspices of the Department of Defence(DOD), and not under the Centre for Disease Control (CDC). This in itself is evidence of the shift of health to the realm of security.

global health surveillance activities (Burns 2008). All 192 member states of the United Nations (UN) and WHA offer health services to citizens and at least rudimentary disease surveillance. Governments and individuals face more health surveillance from a larger array of actors but it is through surveillance that the global community has recognised that some states lack resources to address pressing health needs on their own requiring other members of the global community to contribute to global disease control through the GDG framework (Youde 2010: 37).

1.9 Structure of Thesis:

This thesis can be divided into two parts; the conceptual framework and empirical case studies. The conceptual framework contains two substantial chapters (chapters two and three). Chapter two explores GDG and achieves two major aims. The first of these explores the range of actors at play in the GDG mosaic. As the introduction has shown, the globalisation of disease threats has encouraged the involvement of state and non-state actors in disease surveillance. These shall be analysed to give the reader an understanding of the GDG landscape. The second aim of this chapter is to examine the normative and legislative changes to understanding global disease dynamics since the millennium, which have facilitated the emergence of GDG. Moreover it examines common behavioural expectations that states should undertake for disease control. The goal of such is to understand what GDG expects of states, against which the three individual states' actions can be analysed.

Chapter three seeks to understand the theoretical underpinnings of sovereignty. If received understanding in the public health world suggests that state sovereignty is challenged by the normative and legislative changes to disease control, then it proves useful to unbundle and understand the concept of sovereignty in greater depth. This chapter starts with a review of the use of the term sovereignty in global health literature to date. It continues on a further review of sovereignty in international relations, to locate an understanding of sovereignty which reconciles with the empirical evidence provided in the later chapters. As such, this chapter establishes a constructivist reading of sovereignty. Sovereignty is understood as a contested concept, and sovereign duties towards the global community and electorates are dependent on the context. The second half of this chapter explores the connection between sovereignty and responsibility to understand why states may behave

the way they do in global disease control. It concludes by suggesting that responsibility, as with sovereignty, is also a contested concept, but that it is the individual understandings of both sovereignty and responsibility which will determine how a state manages disease control, and whether such actions will be in line with the GDG rhetoric.

The second part of this thesis is broken down into an empirical analysis of the surveillance practices in three case study states to see how issues of global governance, sovereignty and responsibility are apparent in each one, and how these may challenge the theoretical assumptions of sovereignty developed in the first half of this thesis. Each of these chapters follows a similar framework, initially considering the background to the state and its history with disease through a reflection on their recent outbreaks. The chapters then examine the domestic infrastructure for disease control, before analysing their engagement with the IHR (2005) and normative understandings of GDG, such as their involvement globally or with the multi-actor framework for disease control. The chapters each conclude by highlighting their expression of sovereignty within their domestic and international disease control efforts and discuss how the empirical findings helps to answer the central research question of the thesis.

Chapter four considers the UK. Through analysis of disease control policies, observations of their practices during outbreaks of concern and the domestic infrastructure for disease surveillance and response, this chapter suggests that the UK has a strong understanding of internal sovereignty in disease control. It is able to provide the protection to its citizens and economy expected of it as a responsible sovereign, to limit the impact of a potential disease. This highlights the continuance of the sovereign state in GDG, but also the interpretation of sovereignty by the UK. However, the UK has also embodied a number of the norms of GDG, suggesting that it is an equally responsible external sovereign, prioritising global health security and meeting the requirements of the IHR (2005). This dual approach to the UK understanding of sovereignty will be shown through this chapter. Furthermore, the UK's activity in GDG will be shown to be self-interested, looking to benefit from increased awareness of outbreaks and ensuring global and therefore its national health security.

Chapter five continues these themes of self-interest and national security through analysis of Thailand's disease control practices. Through its health policies, actions during outbreaks affecting the region and domestic infrastructure for disease control, Thailand also exhibits a

strong understanding of sovereignty over its disease activity. However, it is not able to provide all health provisions and therefore does seek external assistance for some areas of disease control. However, Thailand has tended to only enter into such arrangements where it maintains a considerable dispensation to decide how the activities are carried out. This highlights its understanding of sovereignty as a precious commodity which it seeks to protect. This chapter also shows the regional role for disease control performed by Thailand. This activity is reminiscent of the norms of GDG, but dispensed at a regional level. This could be evidence of norm localisation taking place within Southeast Asia to acclimatise to the ideals GDG before states internalise the norms on their own. However, it also shows Thailand's use of its regional position to strengthen their national security and serve their strategic interests. As such, this regional activity may represent a rejection of the norms of GDG, and Thailand not acting as the responsible sovereign it is expected to be.

Chapter six examines surveillance and response undertakings in Lao PDR. Differently to UK and Thailand, Lao PDR internalises most of the norms of GDG, appearing as a very responsible sovereign on the global stage. It works with a range of actors in an effort to ensure its own and global health security, including NGOs, development banks, other states and international organisations. Through such activity it embodies the ideals of GDG and an externally responsible sovereign. However, further analysis shows that there is more complexity to this understanding, and Lao PDR appears to be a responsible sovereign externally to encourage donor dollars. Yet Lao PDR has failed in its responsibility to provide health care and freedom from disease to its citizens, highlighting the weak internal sovereignty that exists within its borders.

Finally chapter seven offers concluding thoughts on the analysis presented examining the tensions which exist between sovereignty and GDG. After a brief synopsis of the thesis, it concludes with three key findings. The first shows the social construction of sovereignty as something which contains mutually understood behaviours and the acceptance of a range of norms for GDG, in order to be a responsible sovereign. The second considers how the rhetoric of global health security has been a convenient tool for states to ensure their own national security and secure their own borders and economies from the threat of disease. The third of these findings assesses what this thesis has shown about the nature of GDG, as

an increasingly western centric ideal that promotes a certain agenda to improve western disease control efforts.

1.10 Conclusion

This chapter has introduced the key elements of this thesis. It began by highlighting the life-cycle of an outbreak to introduce the key structures and actors involved in disease control. However, this structure and response to an outbreak is based on a series of assumptions about how the world is perceived which also resonate with the thesis at large. These included how disease is increasingly considered a security threat and assumptions surrounding globalisation, requiring of a globalised response to combat disease. These assumptions led to consideration of three further concepts: sovereignty, responsibility and governance which form the central research question of this thesis: To what extent do state conceptions of surveillance and sovereignty challenge the framework of GDG? Following on from this, the methodology used for answering such a question was presented, alongside commentary on the issues that were encountered whilst undertaking the research. Finally, this chapter sought to define two key components that feature heavily throughout this thesis, those of infectious disease and surveillance. As such, this chapter has provided a thorough introduction to the key issues addressed in this thesis and created a context for the reader to understand the following chapters and the key assertions and questions raised by this research examining GDG, sovereignty and surveillance. One area which this introduction has failed to address in detail has been the concept of GDG and what it means in policy, literature and in terms of this thesis' analysis. Chapter two provides greater context to what GDG is, how it has been created, and how it may create tensions with state sovereignty.

Chapter two: What is Global Disease Governance?

2.1 Introduction

As was indicated in the introduction, there are two key aims of this chapter. The first is to highlight that governing outbreaks of infectious disease is a complex process, involving a multitude of actors, each of which contributes to the innovative governance arrangements for disease control which constitute global disease governance (GDG). Accordingly, this chapter intends to show the constitution of GDG landscape. The second aim of the chapter is to underline the normative and legal changes to global disease control, which have allowed such a governance framework to occur. In order to understand whether tensions exist between GDG and sovereignty, it is important to underscore the expectations of disease control at the global level. As part of this aim, this chapter establishes how disease surveillance has been framed at the global level, as a necessary requirement of ensuring global health security. This position then acts as a baseline for understanding how each state is expected to behave in the global health arena, and who they are expected to collaborate with. This chapter also represents the first of the two theoretical chapters in this thesis. By reviewing the literature and policy to date on the subject of GDG, it grounds the thesis in contemporary debates of global health and international relations.

Firstly this chapter reviews the global health governance and literature to date and show how this multi stakeholder framework has emerged. It shows how central tenets of global health governance can be equally applied to GDG. Following on, it assesses the range of actors involved in GDG, showing how they contribute to disease control. This includes states, NGOs, digital disease surveillance actors, the WHO, and its tools of GPHIN and the Global Outbreak Alert and Response Network (GOARN).

The second part of this chapter analyses under what conditions such a governance framework has been created. This focuses on two key areas; normative and legislative changes. It shows that in the post-SARS experience, new norms have been championed by the global health community to produce criteria that states should adhere to, such as transparency and prompt reporting. These normative obligations have then been codified in international law by the revisions to the IHR (2005). These engage states in a legal commitment to maintain certain responsibilities to the global community to limit the spread

of infectious disease. As such, this chapter concludes by reaffirming that a multi-actor governance framework for disease control has emerged over the last two decades. Understanding this framework is vital to understanding potential tensions between GDG and sovereignty.

2.2 From governments to governance

Traditionally the nation state has been responsible for the protection of the health of its population. All 192 member states of the UN and WHA have a Ministry of Health in one form or another. This implies that each of these states take some responsibility for the health of its citizens (Davies 2010:31) and sees that health constitutes an important activity of the liberal notion of a social contract between population and government. However, in reality globalisation has increased interdependence between states (p.16) and has rendered the capacity of states to work in solitude obsolete in limiting transnational disease threats. Consequently, there is a growing consensus that multiple states and even multiple actors working in unison represent the best method for limiting the spread of infectious disease. This mosaic of actors working together in infectious disease control is known as GDG. This demonstrates an institutional change from a structure that consisted primarily of national health policies and some inter-national efforts to control cross-border challenges towards a multi stakeholder system of disease governance (Hein, Bartsch and Kohlmorgen 2007:9).

Although it is difficult to pinpoint when a shift occurred allowing GDG to emerge, a number of academics (Kamradt-Scott 2010; Fidler 2004; Youde 2012) view the outbreak of SARS (2002/3) as the catalyst for revisiting the contemporary structures of disease control. It was recognised that in a globalised world, as long as any individual national capacity for surveillance and response remain weak, revised mechanisms for outbreak alert and response will be needed as a global safety net that protects other countries when one nations' system fails (Heymann and Rodier, 2004). As such, SARS presented the world with *"an opportunity to develop new governance structures between multiples actors in the national, international and global contexts"* (Aginam 2005: 60). This new form of governance for disease control has been championed by all involved to replace the state-based - international organisation management of infectious disease outbreaks which has proved itself to be out-dated and unable to combat contemporary disease threats (Kickbush

and Cassar Szabo 2014). Furthermore, the UN understands that control of outbreaks of diseases, particularly new diseases whose origins remain unknown requires international and regional cooperation (UN 2003) as well as increased collaboration with non-state actors to formulate global cooperation for disease control.

Beyond shifting policy understandings, the academic literature on global health governance has also reflects this change in attitudes. Indeed, the literature argues that globalisation has challenged the state and caused the diffusion of authority to a range of actors (Ricci 2009). This new formulation is known as governance, which can be defined as the actions and means adopted by a society to promote collective action and deliver collective solutions in pursuit of a common good (Dodson, Drager and Lee 2002:6). The concept of governance can most greatly be connected with the work of Rosenau:

“Governance is not synonymous with government Both refer to purposive behaviour to goal orientated activities, to systems of rule. But government suggests activities that are backed by formal activity by police powers to ensure the implementation of duly constituted powers, whereas governance refers to activities backed by shared goals that may or may not derive from legal and formally prescribed responsibilities that do not necessarily rely on police powers to overcome defiance and attain compliance.” (Rosenau 1992: 4)

According to Rosenau (1995: 15) *“Governance doesn’t suddenly happen”* and central to the process is the establishment of rules, norms, principles and decision making procedures which bring order and establish cooperation (Rosenau 1995). In GDG, the rules, norms, principles and decision-making procedures form a legal and normative framework prescribing the responsibilities of each state to limit the spread of disease. Such a framework constitutes the conceptual foundations on which this chapter proceeds.

Considerable literature has emerged over the past decade referring to *global health governance*, which has been defined as *“the collective forms of governance, from the subnational to global level which address health issues with global dimensions”* (Lee and Goodman 2002: 115) or *“the formal and informal institutions norms and processes which govern or directly influence global health policy and outcomes”* (Sridhar 2009: 21) and *“the use of formal and informal institutions, rules and processes by states, international organisations, and non-state actors to deal with challenges to health that require cross*

border collective action to address global health concerns effectively” (Fidler 2010:3). This incorporation of formal and informal institutions moves international health, (which focuses on cooperation among state governments and recognises states as having exclusive responsibility to protect health) (Dodgson, Drager and Lee 2002:8), to a much more holistic approach to global health. These definitions lead to two key attributes of global health governance that states are not the only relevant actors for addressing health concerns, and that there is considerable breadth to the actors involved in the governance framework.

Youde (2012) suggests that effective global health governance has four attributes: 1. a focus on factors that cross geographical borders, 2. employment of multi-disciplinary approaches to interventions (i.e. not just public health), 3. giving a voice to a wide range of actors and, 4. reliance on transparent and accountable systems. These four attributes can be similarly applied to GDG. The distinction between global health governance and GDG is important for this thesis, as the focus of the thesis is limited to actors, norms and legislation relating to infectious disease control, rather than broader determinants of health. Indeed, whilst broader determinants of health often have a direct correlation to infectious disease, such as sanitary conditions and access to primary health facilities, this does not mean that they should be treated as synonymous.

This thesis argues that Youde’s definition of global health governance can be applied to GDG too. Firstly, GDG must focus on factors that cross geographical borders. Buse et al (2002: 270) argue that the shift to globalise disease control arose when the causes of health issues circumvented, undermined or were oblivious to territorial boundaries of states, and thus beyond the capacity of states to address through state institutions alone. As was highlighted through the outbreaks mentioned in the introduction, these disease outbreaks were not limited to one geographical location, and nor has their response been limited to one state. Accordingly, contemporary infectious disease outbreaks are not (and arguably, cannot) solely be addressed at the national level. A governance collaboration with multiple actors at the global level is necessary to address global disease challenges (Sridhar 2009)⁵.

⁵ Here lies the distinction between governance for infectious disease and those for non-communicable diseases, which are managed at the national level as they do not pose a cross-border threat. Global disease governance, and the focus of this thesis, only applies to infectious diseases, those which can cross geographical borders, and those which are framed as a security threat.

Secondly, GDG, like global health governance, employs a multi-sectoral and multi-disciplinary approach to its activity. GDG stands out as an exemplar of this trend for interdisciplinary activity. Fidler (2007: 3) has aptly referred to the heterogeneity of actors, mechanisms and funding structures involved in the delivery of health care and public health protection globally as '*unstructured plurality*'. Each of the actors that make up the GDG landscape offers a different set of services and takes a different approach to disease control. To date this has included computer science and technological advances of digital disease surveillance, the clinical response of NGOs, the technical oversight of WHO and economic specialisms of organisations such as Association of South East Asian Nations (ASEAN). Accordingly it is fair to say that there is a multi-disciplinary approach to GDG.

Thirdly, GDG is based on the implicit understanding that no single institution or state has the capacity to respond to international public health emergencies caused by emerging infectious diseases (World Health Report 2007). There are an increasing number of actors that influence disease control outcomes that were once solely decided upon by sovereign states. These to date have included: states, NGOs, international organisations, regional bodies, civil society groups, friends and colleagues of public health officials and digital disease surveillance systems. This range of actors involved not only enables greater incorporation of data to improve surveillance of infectious diseases, but as suggested by Youde (2012: 4), by involving a greater number of actors, states may act quicker to implement effective surveillance and response, for fear of being named and shamed for inactivity by the host of other actors which are now involved.

Fourthly, it is clear that there is a transparent and accountable system of governance which actors adhere to for the most part. Each actor in the GDG framework is expected to share any information pertaining to potential disease outbreaks in a transparent manner. This is in an effort to ensure an accountable system provides the best possible disease control rather than doubling up on disease efforts, or concealing information which may be beneficial to others. If an actor in the governance framework fails to live up to such transparency expectations, then they could be held to account by the other actors within the GDG mosaic. Popular oversight (by all parties) is important for building the legitimacy of any global governance system. Opaque organisations or inscrutable practices give rise to suspicion and undermine the potential efficacy of health interventions (Youde 2012: 4).

However, this framework is not without problems. The range of actors each with competing interests, activities and funding provides constructive discussion amid a multi-sectoral governance system, could also be viewed as, at best, a highly chaotic system (Ruger 2004). A 2014 opinion piece in *The Lancet* referred to GDG as “*a relatively weak system of multilateral institutions built on the shaky foundations of sovereign states*” (Frenk, Gomez-Dantes and Moon 2014: 96). As global disease control becomes more important politically and governments increasingly view disease as a security threat, states will have to work closely together with a range of actors to ensure that the number of actors involved in disease control will only strengthen, rather than damage the governance process. By exploring GDG in further detail, this chapter helps to answer the question of this thesis by showing the intricacies and development of the governance structure for disease control. This highlights the actors involved and their relationships and position within the GDG matrix. This offers the context in which this thesis will examine sovereignty and the challenges it may face, ultimately showing that sovereignty has not been eroded by this novel governance approach, but merely redefined by it. The next section of this chapter analyses the individual actors involved in the GDG mechanism to understand the network in greater detail to understand the sovereign states’ position in this landscape.

2.3 Actors

Although GDG could be construed from the above discussion as an analytical given, it is important to assess the component parts of this governance framework to understand the connections and tensions within it. Although most actors appear committed to the idea of a GDG landscape, this does not mean that there is always a harmony between them. There has been a significant increase in the number of organisations involved in disease control in the last decade, with the result that the landscape of global health has become multiplicitous and in many instances, poorly coordinated (McInnes and Lee 2012). As such it is important to analyse the role of different actors in the governance framework to establish what impact concepts of individual sovereignty and responsibility for disease control may have in the broader mosaic.

This thesis chooses to start with analysis of states’ role in the GDG landscape viewing states as a central actor on whom all other actors rely to some extent. As shown in broader

comments on global health governance, the state is the primary site of such governance arrangements, both as the building unit of the arena in which governing global disease takes place and the provision of financial assistance to implement programmes (Harman 2012: 28). This section then analyses the role of the WHO in global disease control, including two of its key initiatives in global disease surveillance: GPHIN and GOARN. It traces the history of WHO's involvement in global disease control, and shows that despite recent unprecedented changes to its role in the global disease mosaic, the WHO remains dependent on the goodwill of its member states.

Finally, this section analyses two further groups of actors involved in disease control; digital disease surveillance organisations and non-governmental organisations. It shows how these actors have an increasing space in the GDG landscape, due to their abilities to provide early warning detection of outbreaks often prior to state architecture.

2.3.1 States

The state provides three key functions of GDG. Firstly, states, have implemented disease surveillance infrastructure needing to know what diseases their citizens may be exposed to, in order to provide suitable health care. Although the sensitivity and capability of individual state's surveillance system varies, depending on the state's public health infrastructure, it is nevertheless present. Secondly, the state also provides response to disease outbreaks. This may be adequate to limit the spread of any outbreak within their territory, such as the case of foot and mouth disease in UK (2001), or they may require outside support to limit the spread of the pathogen, such as in the case of Sierra Leone, Liberia and Guinea in the outbreak of EVD (2014/5). Nevertheless, the state decides whether they are able to manage the outbreak on their own, or whether they need to welcome in partners to offer the best response. Thirdly, at the international level, states report outbreaks of concern to the WHO, as per the IHR (2005) (p.58). Prior to the IHR revisions in 2005, it was only states that reported outbreaks. Although other actors now have the legal prerogative to report outbreaks to the WHO, any information has to be verified with the affected state before wider notification at the global level. Further discussion about how the changes to this reporting relationship have challenged sovereignty will be discussed the second half of this chapter.

States have always been the primary actor in GDG landscape. It was states which developed the framework for multiple actors to manage disease. International health cooperation began through a series of fourteen International Sanitary Conferences during the 19th and 20th centuries. The aim was to establish an international agreement between states on preventative methods for the spread of disease that did not affect trade patterns (Howard-Jones 1975:9). It was this series of international conferences, which in part led to the creation of the WHO in 1948. However, this framework only included states (and later the WHO). States remained the undeniable governing actor in disease control until the 1980s (either independently or through multinational organisations with state membership). Subsequently as part of the normative shift encouraging a neo-liberal agenda, the state's role was increasingly rolled back, and several other actors began to occupy a role within this governance arrangement. This opening up of the health agenda to others resulted in considerable discussion of the waning role of the state in GDG (Fidler 2004, Davies 2010, Youde 2012). This thesis contends this suggestion, by showing that the role of the state has not diminished, but rather has been reformulated by contemporary disease governance understandings (p. 253).

Ricci (2009) states that the language of global health governance underemphasizes the state and over emphasizes the role of non-state actors. This thesis furthers this argument, showing that state activity remains key to allowing the involvement of other actors in global health, a concept which is often overlooked by those discussing global health governance (Davies2010, Youde 2012). Any non-state or actor who wishes to implement any disease control mechanism needs the state to implement such activity (Harman 2012:28). This is no truer than in the case of the IHR (2005), which provide a global legal framework for the globalisation of disease control, and allow for the widening of actors involved. However, the success of such legislation is entirely dependent on the state for implementation. States must fundamentally *“develop, strengthen and maintain the capacity to detect, assess, notify and report”* (an outbreak event) (WHO 2005: 11). This remains the core element to the GDG landscape, and despite the plethora of different actors involved in disease management, without state buy-in, they will have little ability to act. As Elbe (2008) highlights, the state has the power to hamper or encourage activity from others, and impede response activities. Most fundamentally, it is states that have allowed the range of non-state actors to operate

within their borders. The state is not a hollow entity or absent actor submitting to external forces over which it has no control (Ricci 2009). Put simply, if the state did not want others involved in disease control within their borders, they would not allow this to happen, in the case of Indonesia and the virus sharing controversy ⁶.

However, despite the continued central role of the state in disease control, interestingly the majority of the world's information about infectious disease outbreaks and response to them no longer come from voluntary reporting and actions by individual states and thus there is an ever increasing role for non-state actors (Heymann 2006). Key non-state actors in infectious disease control will be analysed next, to understand how they may challenge sovereign control of surveillance and response. This shall start with the only international organisation tasked exclusively with disease control, the WHO.

2.3.2 World Health Organisation

The challenge of organising global disease control into an effective governance structure is that in a world of sovereign states and other non-state actors there is no hierarchal authority or world government to fill the gaps⁷. Nevertheless, the WHO has been afforded the rhetoric of leadership by the GDG landscape; such as the UK who suggests that the WHO has increasingly recognized itself as the apex of the aforementioned GDG landscape (House of Lords 2007:32). Importantly, however, the WHO considers its role solely as a technical and normative agency, rather than as a leader in global health. Yet, when trying to understand the complexities of GDG, examining the operations of WHO offers insights into how the global community has conceptualized responses to disease governance needs and how that conceptualization has changed over time (Youde 2012: 30).

Until recent years, the WHO's function in disease control had predominantly been to assist governments, upon request, to furnish appropriate technical assistance, and, in emergencies, offer necessary aid to governments (WHO 1946: 2). Notably their constitution states that the WHO will '*establish and maintain administrative and technical services as*

⁶ The Indonesian government refused to share samples of H5N1 that was circulating within their territory to the WHO (as protocol states). They feared that any vaccine created from this virus would be prohibitively expensive and they would not be able to afford to purchase it for their citizens, in spite of the fact that the vaccine would not have been made without their help (Elbe 2010b; Fidler2008). Indonesia claimed 'viral sovereignty' over this strain of H5N1 under a piece of international law, the Convention on Biological Diversity.

⁷ This is true beyond disease control in a whole range of transnational issues and governance arrangements.

may be required including epidemiological and statistical services... and to stimulate work to eradicate epidemic, endemic and other diseases' (WHO 1946: 2). Furthermore, the WHA has the authority to adopt regulations concerning sanitary and quarantine requirements to prevent the international spread of disease (WHO 1946: 7). Because of these constitutional positions, several governments view the WHO as the first point of contact for technical advice in disease control (House of Lords 2007: 36). It enjoys a privileged position of being legitimate in the eyes of governments, and according to some, a neutrality that other health organisations do not possess (HOL:2007:36).

Article 2 of the WHO Constitution states that it possesses '*directing and coordinating authority on international health work*' (WHO 1946: 2). Traditionally WHO has involved itself in all international disease control and as it states '*A central and historic responsibility for the WHO has been the management of the global regime for the control of the international spread of disease*' (WHA 2005a:1). This core function of the WHO has varied since its naissance. In 1949, infectious disease dominated the new agency's first list of priorities as governments felt coordinated international action was urgently needed to control international levels of malaria, tuberculosis and sexually transmitted diseases (Chisolm 1950: 1023). The WHO's role in the control of infectious disease manifested itself through international regulatory agreements. In 1951 the WHA adopted the International Sanitary Regulations, combining and replacing the existing international health conventions, firmly entrenching the WHO at the centre of disease governance arrangements (Youde 2012: 118). These regulations required international agreement on standard epidemiological procedures, such as a unified consensus on six notifiable diseases which governments had to notify the WHO of their occurrence. Furthermore, under these regulations states had to implement minimum hygiene measures at ports, as well as requiring certification of vaccinations. The fact that these were entrenched under international law is pertinent, as it shows that even in 1951, the WHO was cognisant of its position in comparison to that of states, and it had to act within agreed terms set out by international law, in order not to challenge state sovereignty with its recommendations.

These regulations were updated and renamed the IHR in 1969. The changes reflected contemporaneous thinking on disease control practice, where quarantine as a method of dealing with disease was lessened. Furthermore, reflecting the belief that the world was

winning the battle against infectious disease, the number of notifiable diseases was reduced to just three. However, the role of the WHO in GDG began to shift during the 1990s as officials working at WHO began to see how their provision of the best public health practice was no longer fit for purpose. The IHR (1969) only covered three diseases and there was no other method of obtaining disease pertinent data if a state was not forthcoming with this information. This highlighted that the WHO understood that the state remained at the centre of international efforts to govern disease outbreaks, and the WHO had limited power to enforce any of their regulations.

However, this role of the state at the centre of disease control efforts was challenged by the outbreak of SARS in 2002/3, during which WHO assumed an unprecedented role in the coordination of the response efforts. The failure of China to promptly report to WHO or notify the globe of the pathogen emerging within their territory allowed other states and global actors to understand the potential concerns of such a state-centric governance system (p.63). Nevertheless, apprehensions of state cover-ups in the instance of a disease outbreak, saw WHO emerge as the central repository of disease information and analysis⁸, presenting the world with an opportunity to develop new governance structures between multiple actors as infectious diseases continued to pose a problem globally (Youde 2010: 161). As such the WHO in the post-SARS world has become the flagship of the new concept of globalised surveillance of infectious diseases, and a central feature of GDG (Heymann and Rodier 1998).

The WHO is paramount to the newly acquired global conceptions of disease governance, offering support to surveillance activities, and fielding responses to reports of disease which appear from a variety of sources.⁹ This is not only seen in its creation of international

⁸ For greater analysis of the role of WHO during the SARS outbreak, see Heymann and Rodier 2004, Fidler 2004, Kamradt-Scott 2010, 2011

⁹ This is not dissimilar to other initiatives that the WHO have championed in recent years, including the Framework Convention on Tobacco Control (FCTC) (WHO 2003b) and the Pandemic Influenza Preparedness Framework (WHO 2011), which they remain as a leader. The IHR and the FCTC are often mentioned as instruments that only WHO, as a multilateral and intergovernmental organization, could deliver. They can be considered – as are other global agreements and treaties – as global public goods for health. This means that they pertain to things and conditions that transcend national borders and often affect many, if not all countries. Moreover, some of these challenges are even likely to spread their costs and benefits across several generations, past, current and future. They require rules that apply across borders, and institutions at all levels of governance to supervise and enforce these rules. (Kickbush and Cassar Szabo 2014)

legislation to govern actions in the case of an outbreak of disease (p. 58), but its technical advisory support to governments to strengthen healthcare systems and its championing of normative understandings in global shared responsibility for disease control. However, although considered a leader in global health, the WHO lacks the capacity to approach and tackle disease control emergencies on its own, as observed in the EVD outbreak where the WHO was heavily criticised for their seeming failure to halt the outbreak (WHO 2015e). Where the WHO is able to provide leadership, and to achieve its strategic disease governance goals, is through its technical and normative role in bringing multiple partners together to focus and coordinate global responses to disease (Roth 2006). As part of the wider normative goals of GDG, the WHO represents one of the leading actors championing the rhetoric of shared responsibility for disease control with other intergovernmental organisations, agencies and actors (not to mention states themselves)(Kamradt-Scott 2010). This helps to strengthen mutual cooperation and normative understanding about what each actor in the GDG matrix should do, and cement around particular goals of global health security. It is this idea of shared responsibility for global disease control that challenges state sovereign responsibility to protect their citizens and their economies which this thesis seeks to analyse.

The recent role of the WHO in the GDG landscape suggests that the WHO had achieved what it set out to do; *“to be the broadest and most liberal concept of international responsibility for health ever officially promulgated”* (Allen 1950: 30). However, WHO leadership has not been readily manifested due to continued funding shortfalls and its continued tensions with state sovereignty (which this thesis examines). These test the WHO in the GDG mosaic as the organisation seeks to bear a certain responsibility for global disease control in its constitution, but lacks the ability to fulfil this in some instances¹⁰. Despite these considerable challenges, it remains the most prominent intergovernmental organisation addressing cross-border health issues and notably disease control. (Youde 2012: 30). Two notable activities of WHO as part of the GDG framing is their creation and involvement of GPHIN and the GOARN.

¹⁰ In the wake of the EVD outbreak, there have been calls to strengthen the operational capacity of the WHO, so that the organisation would be in a position to respond to large scale outbreaks (Stocking 2015)

2.3.2.1 GPHIN and GOARN

One of the key shifts GDG has witnessed in recent decades has been the use of digital technology to improve outbreak awareness (digital disease surveillance) and a globalised approach to response, which does not rely on any one state.

The WHO, in its quest for ensuring global health security, championed some of the first uses of the Internet for improved disease surveillance, as it recognised the potential that this could hold for real time outbreak awareness. This initially took the shape of GPHIN. This is a Public Health Agency of Canada initiative, born out of television coverage of the plague outbreak in Surat in 1994 which provided more details to the global news community than the state was able to. Accordingly GPHIN acts as an early warning system to alert its subscribers to a wide range of information about potential outbreaks in as close to real time as possible (Mykhalovsky and Weir 2006). It does this by scouring online media sources for articles pertaining to unusual disease events based on established search queries. Its invention marked an important shift in the move to globalize disease surveillance as (WHO) policy makers began to understand that they could bypass the state entirely (if necessary) and still obtain up to date information about the pathogenic status of a particular location. Although GPHIN was initially criticized for reflecting a net loss in the ability of the state to control the flow of information across borders (Stevenson and Cooper 2009), this is not entirely accurate. Such initiative could still be seen as a state entity as, although championed by the WHO and comprised with media sources, it is run out of a state's public health department (Canada). Information ascertained by GPHIN is scrutinized by (Canadian funded) analysts in relation to wider trends in infectious disease surveillance and their potential political or socio-economic impact within the region where a pathogen may have been found (Mykhalovsky and Weir:2006:43). As such, GPHIN's role in the GDG mosaic is to provide initial public health alerts to their (paying) users to notify them of potential outbreaks that may be occurring, acting as an early warning system for response efforts.

What is particularly significant about GPHIN is its unprecedented relationship with the WHO. In 1999, the WHO and Public Health Agency Canada agreed that GPHIN would provide WHO with all of its disease monitoring data and WHO would use this information as the foundation for wider disease control efforts (Wenham 2015). Similarly GPHIN developers

relied on WHO to create a mechanism for verifying its output. The WHO was the only possible organisation to supply verification since, according to the Canadians; it alone has the international legitimacy for verification from state sources (Mykhalovsky and Weir 2006). In the 10 years after the creation of GPHIN, the data supplied came to account for approximately 40% of the WHO's early warning system (Mykhalovsky and Weir 2006). Several researchers have concluded that GPHIN and its relationship with WHO constitute a transformation in the social organisation of knowledge of global infectious disease outbreaks (Davies 2012, Heymann and Rodier 1998¹¹, Weir and Mykhalovsky 2010). The WHO was able to detect information about an outbreak occurring in any particular territory without the explicit consent of the affected government as the information was obtained via media or online sources. Although this did not permit the WHO to action a response without the state's agreement, the WHO was placed in a position to approach a state about a potential outbreak, rather than relying on state agency to report it in a timely fashion. However, in recent years GPHIN's relevance in GDG has significantly waned. GPHIN is unable to offer its subscribers any information which they are not able to obtain from other free online sources. Accordingly GPHIN ceased operating as a paid subscription service and the information generated is now provided by the Canadian government to the global population as a public good (p.147).

A second tool that the WHO has used to encourage a globalized understanding of disease control has been GOARN. GOARN was created by the WHO in 2002, with a remit to coordinate technical resources involved worldwide in combatting outbreak prone diseases (Enserink 2004). It is described as '*a technical collaboration of existing institutions and networks that pool human and technical resources for the rapid identification, confirmation and response to outbreaks of international importance*' (WHO 2012d). The network interlinks in real-time, a large number of existing institutions which together possess the requisite data, expertise and skills needed to keep the international community ready to respond to an unexpected disease event (Heymann et al 2001:348). In an attempt to verify and respond to outbreaks from the earliest possible moment (Grein et al 2000:97;

¹¹ Heymann and Rodier were both employed at the WHO during the 1990s and 2000s, and have been referred to as key architects of the normative shift to globalize disease control and the WHO's role within this. Therefore there may be bias in their interpretations of the role of WHO and its related projects.

Sturtevant et al 2007:119; Youde 2012:200), through GOARN an affected state gains rapid access to experts and resources to supplement its national capacities, and the health security of the global community is buttressed against the international spread of emerging and re-emerging pathogens. (WHA 2011: 35).

The apparent success of GOARN in limiting the spread of SARS in 2003 (Heymann and Rodier 2004) has vindicated efforts led by WHO to put the control of emerging or re-emerging diseases high on the global health agenda (Calain 2007b). Today GOARN remains one of WHO's major mechanisms for providing rapid technical support and expertise to national governments who request assistance (Sondorp et al 2011), and the recent outbreak of EVD is no exception. The GOARN team coordinated a range of institutions and individuals to offer assistance on the ground in April 2014, well before the outbreak was declared as an PHEIC (WHO 2014). Nevertheless, GOARN represents a move away from the state centric model of public health surveillance towards a more decentralized, electronically based global approach. (Youde 2012: 126). Fidler, Lee and WHO even argue that GOARN is the perfect example of global health governance working (Davies 2008: 310) and by extension may represent the best practice model for GDG. Such a network epitomises the WHO's role in GDG, as through its normative ideal of shared responsibility, it is able to coordinate multiple actors to limit the spread of disease.

Analysis of the evolution of WHO since SARS, and two of their flagship initiatives for disease control (GPHIN and GOARN) exemplifies that disease governance has evolved from an intra-state framework to allow other actors to support their activities. This section has shown that the WHO is considered for the most part as a technical agency, but in the post-SARS era, the WHO has increasingly played a greater normative role in global disease control, championing a shared responsibility for ensuring global health security, and highlighting innovative new forms of disease surveillance (such as GOARN and GPHIN). However, the institution has suffered from significant and chronic underfunding, as well as continuing tensions that they face from sovereignty challenging their technical advisory, and has been a considerable concern through the WHO reform discussions (Clift 2014: 4). This underfunding is evident in the wake of EVD, where the WHO's reduced budget for responding to outbreaks was unable to handle the strain of a large outbreak and it had to put out a series of calls for funding in order to carry out its activities (WHO 2014b) Accordingly, with the

WHO beset by challenges of politics, position and funding (Davies 2010: 41), this allows space for the non-state actors in disease control to increase in prominence. In particular, digital disease surveillance actors have multiplied and improved their provision of disease pertinent information.

2.3.3 Digital Disease Surveillance

Internet based technologies have led to an explosion in social networks that harness the power of crowds giving Internet users convenient instant access to information and sources (Eysenbach 2009). This is evident in global disease surveillance, where the Internet is revolutionizing how epidemic intelligence is gathered (Wilson and Brownstein 2009). A vast amount of real time information about potential infectious disease outbreaks is found in various web-based data streams (Wilson and Brownstein 2009). Between news sites aggregators, social media units, blogs and other online information sources it is often possible to detect rumours of an outbreak.

Digital disease surveillance sources can support situational awareness by providing real-time local information about outbreaks even in areas relatively invisible to traditional global public health efforts (for political, geographic or economic reasons). It also serves to offer timeliness, completeness and analysis of data collection whilst also freeing the need for considerable human resources (Lee and Thacker 2011). Furthermore, rationale for making use of novel sources of epidemic intelligence is that they can best meet the dual use needed to learn of outbreaks despite any state's attempts to cover them up whilst simultaneously assisting regions without the capacity to detect outbreaks (Davies 2012). This alternate to state reporting developed from the WHO's unprecedented leap to use through GPHIN for disease outbreak alerts and push for information relating to outbreaks that were not being formally reported by member states (Interview, Senior Official, WHO, 19th September 2012), as discussed above (p. 48).

A plethora of such actors have emerged, and they are mining numerous sources, as well as contributing to the normative change in surveillance by increasing the popularity and availability of using such sites to get real time information. Collectively through using data not routinely collected by governments, digital disease surveillance provides a view of global health that is fundamentally different from that yielded by disease reporting through

traditional public health infrastructure (Brownstein et al 2009). Examples of such systems include HealthMap and Biocaster which use data from aggregated news feeds, ProMED-Mail which uses individual clinician's updates, FluNearYou and Flusurvey which rely on weekly user feedback from public participation (often referred to as participatory surveillance) to develop real time disease alerts, and Google Flu Trends and Google Dengue Trends which harness search engine data to monitor for symptoms frequently entered with similar locations of IP addresses (Wenham 2015b)¹².

The two most pertinent examples for this thesis are HealthMap and ProMED-Mail as these are the two digital disease surveillance bodies which are most used by the three case study states. HealthMap, is an automated real time surveillance system that monitors, organizes, filters and visualizes online information about emerging diseases, pulling data from over 20,000 sources every hour including from news aggregators such as Google News, Factiva, Al Bawba (Wilson and Brownstein 2009). Through such a method they generate a unified and comprehensive view of current infectious disease outbreaks in contemporary space and time worldwide (Brownstein et al 2008). The algorithms scan up to 20,000 websites every hour, twenty-four hours a day, in six different languages, producing upwards of 300 reports per day to be shared with their users on their freely accessible web-platform (Brownstein et al 2008). Their unique users numbered 2.1m in 2014 (Brownstein 2015) and included a range of practitioners from libraries, health departments, government departments, multinational agencies, public health teams and individuals.

A different approach is that of ProMED-Mail which acts as a list-serv collecting and collating reports from individual medical and public health professionals in their network (rather than media sources). Originally intended as a professional development website for clinicians to share practice and experience, this system has proved multi-purpose as it also is able to track and monitor viruses circulating through their presentation in clinics or healthcare centres worldwide (Madoff and Woodall 2005). These reports are analysed and edited by staff to ensure their epidemiological accuracy and relevance. To date they have over 70,000 subscribers in 188 countries (Madoff 2015).

¹² This list is not exhaustive and there are numerous other digital disease detection bodies that contribute to situational awareness of outbreaks.

Accordingly, these two digital disease surveillance platforms are able to detect new sources of disease pertinent information beyond the traditional hospital – regional - national – international system which can suffer from bureaucratic lag times (Wenham 2015b). Through using novel data sources, these systems have proven that they are able to obtain information about outbreaks sooner than the traditional state – WHO based system. For example, H1N1 was seen occurring in Mexico by Healthmap in April 2009 before the WHO received the official report (Brownstein et al 2009), and MERS-CoV was detected by PROMED-Mail in 2012 prior to official state reporting (Sample 2013). Furthermore, with the rapid growth of the Internet over the past decade, it is now possible to have reports from much of the world (Morse 2007), thus actively gleaning information from areas where domestic surveillance infrastructure is lacking¹³.

However, these systems are not universal as they rely on a series of public and private goods in order to access and contribute to the information generated. Public goods are required to enable access to the Internet, as well as the necessary freedom to access the Internet and a level of (computer) literacy which, in many cases, are up to the state to provide. Similarly, lack of private goods such as a computer or a mobile phone to access the data can be an impediment to accessing such services. Access to any of these goods will impact on how an individual, state or non-state organisation may be able to interact with such digital disease surveillance providers, and therefore how they perceive the role of them in GDG. The impact of access to the internet can only be noted in that if there is not a vast wealth of data sources online referring to outbreaks in any particular region (due to little market for it as there are so few users) then there will be fewer sources for such digital algorithms to scan for outbreak rumours.

¹³ There is also evidence of such systems taking a role in advocacy in the area of global disease governance. This can be seen in the promotion of the global burden of disease by some digital disease surveillance providers. They are able to offer real time data on disease prevalence of many neglected tropical diseases (such as Nodding Disease in Uganda), so that governments, the WHO and the international community are coerced into taking action, such as in organising further discussion on a particular topic or in allocating a greater budget to tackle the particular issue (interview A). This has also included collaborations between more traditional NGOs and digital actors. For example Google's Dengue Trends and HealthMap have collaborated with BreakDengue, a transnational advocacy organisation to highlight the burden of Dengue Fever globally and encourage greater global activity to limit its impact and spread.

Such innovation has fundamentally reconceptualised the manner in which surveillance is carried out, with new technological capacity offering the potential to build an active global surveillance system for infectious disease outbreaks which would never have previously been possible (Wenham 2015b). The inclusion of such actors in the global disease mosaic is a potential advance towards a more effective global system of disease control (Rushton 2011). Moreover, with these online sources of information, it is less likely that states will be able to prevent the leakage of disease pertinent data (Davies and Youde 2013:143). However, there still remain considerable issues relating to the creation and incorporation of these actors into the GDG landscape due to their propensity to create false positives and whether they can be trusted as a source of disease pertinent information. However, even in the process of writing these sources have improved in their accuracy and ability to act as an early warning system¹⁴. Similarly, governments have become more alert to the source of information provided and have, in some cases, incorporated them into their disease modelling practices for public health. The incorporation of these actors into state surveillance is particularly important when analysing global disease surveillance. Initial consideration of these actors could be an infringement on sovereignty as they disallow the state the ability to decide when to report an outbreak. However, as highlighted by Davies (2012: 107) this view is flawed if the reports detected by digital disease surveillance came from the state in the first place. Moreover, the use of such systems also suggests that states are unable to trust the WHO's provision of information through the IHR (2005) reporting mechanisms. This indicates that states still remain the key actor in disease control (Ricci 2009), as they are effectively bypassing the WHO and commissioning disease information from preferred sources. As such, analysis of these actors helps to answer the research question about the interaction between surveillance and sovereignty. By using digital disease surveillance, a state can show that it has internalised the norms of GDG, both of prompted reporting and increased transparency (p.64, but yet can remain in a central position to their activity, contributing to them, and using their data simultaneously).

¹⁴ Google Flu Trends ceased operating in 2015, as it was established that their algorithms for detecting outbreaks using search queries were not rigorous enough to establish correlation between these searches and outbreaks of disease, missing the influenza peak in 2013-14 by 140%, with the model overfitting for a number of seemingly unrelated search terms (Lazer et al 2014).

2.3.4 Non-Governmental Organisations (NGOs)

Beyond digital disease surveillance actors, there is also an increasing role for more traditional NGOs in the governance of global disease. Since the declaration of Alma Ata (1978), which welcomed the development of non-state actors in the realm of global health, NGOs have had an increasing role in global disease control. As discussed by Davies (2010 39), the role of NGOs in global health tends to fall into two distinct categories; advocacy and practical initiatives. Although advocacy is an important role in broader global health movements, for the purpose of this thesis, this section will focus on the practical initiatives, notably surveillance and response of infectious disease.

The role NGOs play in GDG is divided between surveillance and response. In terms of surveillance for outbreaks, epidemiological data gathered by NGOs, such as International Rescue Committee, Oxfam, MSF and Save the Children is frequently shared formally through publications and websites of the respective actors, which are freely available to all. Furthermore, notifications of potential diseases occurring are often shared through informal conversations between employees and international colleagues. NGOs often have staff in field locations in regions where state infrastructure is lacking. If an outbreak happens in one such area then it is often the medical personnel of a grassroots or international NGO that might initially realise something is occurring. Developments in modern communications allow for staff members to share this information with their contacts domestically or at the global level in an effort to encourage an ensuing response to the outbreak (Interview, Epidemiologist, WHO, 21st September 2012). Similarly to digital disease surveillance actors, the involvement of NGOs may not challenge state sovereignty, as may be inferred, but rather redefine what a state's sovereign responsibility is in disease control, to work with NGOs to detect and respond rapidly, rather than waiting on failing state infrastructure and potentially jeopardise their citizens. An example of this is the outbreak of Hand Foot and Mouth Disease in Cambodia in 2012 which was first reported to the national and international community by a small NGO, Kantha Bopha, in Phnom Penh (The Lancet

Infectious Disease 2012). This spurred activity at the Ministry of Health to investigate the as yet undefined outbreak, and led to a national intervention to limit the disease's spread¹⁵.

NGOs also play a vital role in responding to outbreaks of infectious disease, especially in regions where public health provision and medical supplies are limited. This distinguishes them from digital disease surveillance actors, and increasingly the WHO, who may offer surveillance capabilities, but are unable to implement a response. The EVD outbreak in 2014/15 provides a good example of this¹⁶. With the states affected suffering from inadequately funded and poorly coordinated health systems, they have been unable to manage the outbreak on their own. NGOs have been involved both in surveillance and response to the outbreaks. NGOs possess useful and specialised knowledge, and therefore develop high levels of expertise that a government otherwise would not other be able to offer, and can defray the costs of such expertise (Youde 2012:102). In EVD, MSF had prior experience of the disease, which the states did not have, and thus were able to deploy trained staff and facilities rapidly to start in relief work¹⁷. Furthermore, with the delay in activity by the WHO during this health crisis, the burden of work to limit the outbreak's spread and care for those affected has been taken up by NGOs, both at the local and international levels (USAID-Center for International Disaster Information (USAID-CIDI) 2015). These organisations have been involved in building field hospitals, providing clinical care to patients, improving medical facilities and implementing disease control methods where practicable. Through their surveillance and response activities NGOs are able to support governments when they are unable to do so, and contribute to the data they gather to the broader GDG framework in an effort to improve global health security.

2.3.5. Other actors

Other actors are involved in GDG, which it would be remiss not to mention. Firstly, several other international organisations take an active role in disease control. These include the

¹⁵ This outbreak also was of interest at the global level as it came at the time of five year anniversary of the IHR (2005) which was when the revisions were supposed to have been fully implemented, so the global community wished to see the resilience mechanisms at play

¹⁶ Initially, several NGOs active in the region fled the affected states as they were unable to respond to such an outbreak, however, many international NGOs returned when they had the support and reassurance of military presence in the region (Kamradt-Scott et al 2015)

¹⁷ Although the scale of the EVD outbreak meant that MSF were soon overwhelmed and lacked capacity to respond.

World Bank, the International Monetary Fund, the World Trade Organisation, the UN and its subsidiaries; including United Nations Children's Fund (UNICEF), Joint United Nations Programme on HIV/AIDS (UNAIDS) and United Nations System Influenza Coordination (UNSCIC). Secondly, numerous private companies also have a role in disease control. These include pharmaceutical bodies that contribute to medication or vaccine development or supply for disease control efforts, but also organisations contributing through their corporate social responsibility movements (Buse and Lee 2005). Consideration should also be paid to the newer actors on the global health scene: those of philanthropic foundations (McCoy et al 2009, Okie 2006), public-private partnerships (Ruston and Williams 2011, Buse and Walt 2000) civil society movements (Doyle and Patel 2008) and celebrity activists (Harman 2012:84). These actors are playing varied and increasing roles in global disease control and global health governance more generally, but for the purpose of this thesis focusing on global disease surveillance and reporting mechanisms, they have not been included as pivotal actors.

This extended section has shown a snapshot of the range of actors that form the multi-actor framework for disease control, GDG. Beyond their various activities in disease control which complement, and in some areas double up with each other as has been described above, these multiple actors have been witness to two key changes which have allowed for an understanding of global cooperation for disease control. These two changes, normative and legislative, will be analysed in the second half of this chapter, to offer insight into how the GDG landscape has sought to create an understanding for shared responsibility for disease control that may contrast with the sovereignty of the states examined through the case studies.

2.4 Why has GDG been allowed to happen?

Through their interactions and workings these actors have attempted to create a receptive environment for effective governance of global disease. They embody a governance framework with multiple actors sharing mutually reinforcing goals, which has come into existence by means of two key movements: 1. standardization of behaviour, in which norms are championed amongst a range of actors, encouraging global solidarity and responsibility for minimizing infectious disease, and 2. the making of international law (Harman 2012:37)

which in this instance refers to the IHR (2005). The WHO has championed these changes, firstly in demonstrating that international law is an effective mechanism within GDG and that it has the ability and legitimacy to bind states into such agreements and influence its general enforcement (Harman 2012:38). Secondly, the WHO has encouraged standardised responses to suspected disease murmurs and outbreak management protocols to ensure the containment of emerging threats (Harman 2012:37). Analysing these normative and legislative changes to the global understanding of infectious disease is important for two reasons. Firstly it will help to show how the aforementioned actors cooperate with each other, and under what circumstances, which will help to explain the relationships within GDG. Secondly, it will offer context to the environment in which states find themselves in the disease mosaic. This will prove useful for understanding how state sovereignty may be challenged by contemporary GDG practices. By highlighting the momentum behind the changes to the GDG landscape, this section will suggest why states may be threatened by GDG and need to redefine or reassert their sovereignty as a consequence.

2.4.1 IHR (2005)

It could be said that the era of globalized disease governance began with the updates to the IHR (2005) that widened the role and responsibilities each state (and non-state actors) has to the global community to minimize the global spread of infectious disease. Although updates to this piece of international legislation were discussed numerous times during the 1990s, it was China's attempt to conceal the outbreak of SARS (2002/3) that made the global health community realise that it was ill equipped to deal with a truly global outbreak (Heymann and Rodier 2004). It became clear that there existed a bottle neck in the legal framework of global disease control, in that if a state chose not to report an outbreak, there existed no means by which the WHO or the broader global community could take action to limit a disease's potential spread (Youde 2012:125). The revised IHR (2005) tried to overcome this bottleneck by broadening the scope of disease surveillance, and offering an opportunity to review and develop new governance structures between multiple actors (rather than simply just states) (Aginam 2005:60). Fidler argues that this is the most radical development in the history of the use of international law on global health problems (House of Lords 2007:38). As such, the defined purpose and scope of the IHR are *"to prevent, protect against control and provide a public health response to the international spread of*

disease in ways that are commensurate with and restricted to public health risks, which avoid unnecessary interference with international traffic and trade” (WHO 2005: 1).

After discussions about how to make the IHR fit for purpose in the 21st century (Katz et al 2010), the global implementation of the revisions to the IHR (2005) began on June 15th 2007, and in an unusual episode of international consensus, all 194 member states ratified the agreement (Ijaz et al 2012)¹⁸. All states were required to develop and implement a minimum of core public health capacities by June 2012, the five year anniversary of their enforcement (Ijaz et al 2012). Accordingly any state that failed to meet the agreed requirements of these revisions would be violating international law. However, the core capacities defined in the IHR are not yet fully operational globally (WHA 2011b:11). In 2012, on the fifth year anniversary where states were supposed to have met these prescribed requirements 107 state parties asked for two further years to implement the requirements (WHO 2012c). In 2014, when the two further years had also expired, only 42 states declared that they had met the core requirements. This still left 152 states that are in breach of the requirements put on them under international law. Although there may be a number of reasons for this lack of compliance with the IHR (2005), Gostin and Friedman (2015) suggest that a key problem is that the IHR (2005) do not consider the financial burden put on states to meet the requirements and nor do they offer them a funding mechanism to develop the necessary infrastructure.

In terms of how the IHR (2005) revisions have paved the way to allow the globalization of disease control and the provision for the framework of GDG, this next section will follow with an analysis of the 5 key updates which were made to the regulations:

1) Firstly, the number of diseases subject to this international legislation was increased. Under the IHR (1969), states were only obligated to report outbreaks of cholera, yellow fever and plague. This disease specific approach was increasingly viewed as too narrow (Youde 2012:119), as there had been several examples of governments not reporting diseases to WHO which may have posed international concern, (China with SARS), because they were not obligated to do so. However, Article 7 of the IHR (2005) jettisoned the model focusing on specific diseases and included the requirement to report ‘any public health

¹⁸ Although there were some individual amendments from member states (WHO 2005)

event of international concern (PHEIC)' (WHO 2005). The updated regulations took an *all risk approach* (Fidler and Gostin 2006:86) in line with contemporary security discourse, which included all potential pathogens of concern, whether they are manmade or naturally occurring. This allowed the IHR (2005) a broader scope of potential disease considerations, and it was hoped that more reporting would occur. This increased reporting would in turn create an environment for greater dialogue between the range of actors involved, thus leading to a more fruitful disease governance mechanism with increased transparency and reporting out potential outbreaks¹⁹. This also helped to create a better-defined role for WHO as the central body in GDG, as the receiver and collaborator of these multiple disease reports (Calain 2007b).

2) Secondly, the IHR (2005) revisions allowed for the expansion of sources able to report outbreaks to the WHO. Article 9 states that '*WHO may take into account reports from sources other than [state] notifications or consultations and shall assess these reports according to established epidemiological principles and then communicate information on the event to the state party in whose territory the event is allegedly occurring*'. These non-state reports could come from other states, sub-national agencies, NGOs, individuals, news reports or internet sources and WHO is empowered to act upon these non-official reports as it sees fit (Mack 2006: 373). Although the WHO has always had constitutional privilege to consult and cooperate with non-governmental and international organisations (WHO 1946:16), its shift under the IHR (2005) to engage with non-state providers of disease pertinent information was unprecedented. This revision has been viewed as a game changer for the landscape of global disease surveillance, as it allowed for a plethora of other actors to take part in surveillance, (such as the aforementioned digital disease surveillance actors and NGOS) which would not previously have been recognised as a legitimate source of disease prevalence information. Accordingly, these newly permissible non-state actors legitimised a host of new eyes and ears to keep watch and hold governments accountable for their response to public health emergencies (Davies and Youde 2013:139) and led the way for the globalization of disease surveillance (Youde 2012 :126).

¹⁹ This obviously relies on states acknowledging outbreaks through the IHR (2005). This has not been the case and there are still states that chose to ignore these requirements such as Syria and the polio outbreak 2013/4 (Tajaldin et al 2015).

3) Thirdly, one of the foundational aspects of the IHR (2005) is the explicit obligation of states to assess, strengthen and maintain “*core capacities*” for surveillance, risk assessment, reporting and response (WHA 2011: 33). The new IHR represented a significant change in the relationship between the WHO and member states as it encouraged a modification of surveillance structures at the national level of each member state (i.e. a challenge on their sovereign decision about how to organise their public health system). Under the new terms, each state had to “*develop strengthen and maintain the capacity to detect, assess, notify and report (an outbreak) event to the WHO*” (WHO 2005:11) with event and indicator based surveillance protocols. Although the IHR (2005) do not specify the exact structure of any national surveillance system, they do tell states what their surveillance systems must produce (Youde 2012:125). This requires establishing technical leadership during field responses, building local capacity for future epidemics and ensuring respect for legal, human rights and cultural sensitivities (Sturtevant et al 2007: 117). There is a further obligation to establish a National Focal Point (NFP) (WHO 2005:11), acting as a pivot between the national health systems and the WHO which must notify the WHO of any event which may constitute a PHEIC within 24 hours of the pathogen’s discovery (WHO 2005:12). Nevertheless, this revision to the IHR (2005) implicitly assumes that states already have a relatively well functioning public health infrastructure to which these additional surveillance systems can be attached (Youde 2012 :128). However, meeting the core competencies will require several states to substantially upgrade their surveillance capabilities, and many countries lack the resources to do this and/or the political will to prioritise the funding of the IHR (2005) competencies over other domestic concerns (as will be seen in the case of Thailand and Lao PDR) (Youde 2012:128).

This requirement to develop basic core surveillance capacities to detect unusual public health events and the creation of the NFP has two major implications. One is that the state develops a more formalised reporting relationship with the WHO, showing a potential shift in the power balance between states and the WHO. In this way, the IHR (2005) essentially give the WHO direct influence over how public health data collection systems operate at the domestic level (Youde 2012: 128). This can be understood as a radical shift in the relationship between the WHO and its member states, as prior to these revisions the WHO had been loathed to involve itself in the sovereign health policies.

The second implication is that the changes to international legislation impose an increasing sense of responsibility for global health security on individual states. States have an explicit responsibility to meet these core competencies for disease control, and be able to detect an outbreak at the earliest moment. It is perhaps this requirement of the IHR (2005) which distinctly highlights GDG's understanding of shared responsibility linked to global health security, and this has been championed through the WHO's legislative offering.

4) Fourth, the IHR (2005) show respect for human rights whilst implementing disease control strategies. Article 3 of the IHR (2005) states that a key principle of the regulations is to realise them with full respect to dignity, human rights and fundamental freedoms of human beings (WHO 2005:17). The inclusion of human rights signals to governments worldwide that their obligation in disease control is not only to their citizens as framed by national health security approaches, but also to others temporarily within their borders taking a more human security approach (Youde 2012: 127). However, the revisions do not acutely address the proximate socio-economic issues and burden of disease that may have contributed to the outbreaks occurring, so the human rights language may be no more than rhetoric. Moreover, the language of human rights expressed in terms of mitigating the impact of infectious disease control does further insinuate that states have a responsibility not only to their citizens, but it could be deduced that in this new landscape of GDG, they also have a responsibility to the global citizenry writ large (see p 97).

5) Fifth, and connected to fourth, the IHR (2005) revisions reflect the global community's contemporary understanding of health, disease and obligations to one another (Youde 2012:128). In this way, firstly these regulations reflect a biomedical interpretation of health and disease, rather than considering social or traditional conceptions of these issues (Krieger 2011). Furthermore, as discussed by Youde (2010) they also reflect a biopolitical approach to disease control and surveillance, highlighting the infected as an external threat to global health security. They highlight that the best way to prevent a global spread of disease is to detect and contain any concern while it is still at the local level, and to alert the global community as soon as possible (Rodier et al 2007). Increasingly they echo a growing understanding (in the West) that disease control is a global phenomenon which requires cooperation, compliance and the good will of all (Chan et al 2009).

Picking up on this contemporary understanding of shared responsibility for global disease control, the IHR (2005) *strongly encourage* states to provide each other with technical cooperation and logistical support for capacity building (WHA 2011:12). This includes the mobilization of technical and financial support for building core public health capacities, so as to ensure full implementation of the IHR (2005) (WHA 2012). This is encouraged both through bilateral relationships and also at regional and sub-regional levels, such as at the EU level or that of the Mekong Basin Disease Surveillance Network (MBDS). It is assumed that states all share the same understanding of what effective disease surveillance looks like, but also what GDG should be, and are all willing to implement such protocols within their own borders. However, states are also encouraged to support each other in ensuring that the core competencies prescribed in the revisions are met in all states simultaneously.

Moreover, the collective responsibility enshrined in the IHR (2005) goes beyond that of states helping each other to meet the surveillance and response requirements, multiple actors now share in this responsibility. By allowing more parties to report disease events to the WHO, the system encourages governments to maintain their national surveillance systems (Youde 2010:165). Efforts of a range of actors in GDG have helped to redefine how states see their obligations to each one another. For example, collective responsibility has been understood at the regional level through the many regional disease surveillance networks (MBDS, East African Integrated Disease Surveillance Network and Middle Eastern Consortium of Infectious Disease Surveillance etc.). Despite substantial political tensions between them (such as Israel, Jordan and Palestine) these groups actively share information for disease control. This collective responsibility is the ultimate goal of the IHR (2005), for states and other actors to work together to stop the outbreak of the disease and limit any potential political or economic impact (Interview, Senior Official, HPA, 14th January 2013).

The revisions of IHR (2005) indicate that the WHO has succeeded in arguing that the urgency of infectious disease requires the new and innovative form of governance. (Davies 2010:153) As a piece of international law, the IHR (2005) requires the acceptance of states to ratify the legislation and incorporate it into national policy. In turn, this requires states to have understood and internalised the normative reasons for wanting to do so. As such, it is interesting to note the language used in the IHR (2005) includes '*urge*', '*encourage*' and '*shall*'. Such subjective language implies that the WHO understands that it is normative

behaviour which drives the success of their aims in global disease control. Furthermore, it might also suggest that the WHO's actions during the outbreak of SARS was unprecedented, and they acted beyond their station (Kamradt-Scott 2015: 99). By using such language the WHO may seek to remind states that they (states) retain the sovereign prerogative to decide whether they want to ratify the IHR (2005), and the WHO can merely encourage them to do so.

However, although IHR (2005) has come into force as a legal instrument created by the WHO, the WHO can only make states adhere to it through the championing of such standardized behaviour, media pressure, naming and shaming and framing issues within their national interest (Harman 2012:38) – or in other words through norms. In general, international organisations function as the international community's conscience, protecting and promoting standards of behaviour that are collectively viewed as appropriate and beneficial (Kamradt-Scott 2010). Accordingly, there is growing consensus that WHO's strength is in its normative agendas, setting normative standards and less on the implementation side (Lob-Levy in HoL 2007:55). It is important to analyse the norms that WHO has championed as part of shifting perceptions of global disease control to answer the research question of the thesis. Alongside changes to legislation, as highlighted in this section changes to GDG have also arisen as collective understandings about what actors should / should not do to limit the spread of disease have also shifted. Norms have emerged at a global level, linked to globalisation, global framings of disease, and the globalisation of actors involved in disease control. To understand sovereignty in disease control and how it may be challenged by GDG, it is important to analyse how the normative conceptualisation about how diseases should be managed has changed.

2.4.2 Normative Shift

International law may form the basic framework for international governance arrangements, but it is often not sufficient. In several instances there exists no means by which a government can be held accountable for violating international law (Kohm 1997, Diehl, Ku and Zamora 2003). Furthermore, it is only member states that ratify such international law as the IHR (2005), meaning non-state actors are not directly covered by such arrangements. Consequentially, alongside international law, informal norms

increasingly prevail throughout governance mechanisms, as can be seen in the case of global disease control. These norms have emerged through complex political processes and collective action to instigate them (Chan et al 2009, Hein and Moon 2013:1).

Norms are a basic concept in the social sciences. Finnemore and Sikkink (1998) define them as a *'standard of appropriate behaviour for actors with a given identity'*. Similarly, they can be defined *'the collective expectation about proper behaviour for a given identity'* (Jepperson, Wendt and Katzenstien 1996) or representing *'standards of behaviour which delineate the sense of ought-ness in how actors should conduct themselves'* (Florini 1996). These understandings can be seen in the iterations of GDG, which is based on a series of mutual assumptions of similar collective goals, attitudes, approaches or rather 'norms' of public health practice.

Norms can influence behaviour in two ways. First they can constitute actors' identities and interests, by outlining the logic of appropriateness for the context or structure in which actors function and by defining what actions are appropriate (March and Olsen 1989, Finnemore and Sikkink 1998:1009). Secondly, norms can also influence behaviour through their embodiment in concrete policy programmes. Through shaping public policy, norms become formalised and lay out rules which prescribe, permit or prohibit certain behaviours within a particular state (Berliner and Prakash 2012). However, global actors such as those involved in GDG can share similar principles regarding a new global norm but differ in their ideal or acceptable policy design to implement it (Berliner and Prakash 2012).

Through the multiple actors involved in GDG a range of collective appropriate behaviours, or norms, have arisen. The SARS outbreak represented a substantial change to the expectations of states and this, alongside the strong leadership of WHO Director General Gro Harlem Bruntland, galvanized states to accept the new environment requiring new standards of reporting behaviour (Davies 2011, Interview, Senior Official, HPA, 14th January 2013). It is through these norms that the global disease agenda is perpetuated and expectations have been set. What is interesting is that states are increasingly under pressure to implement approaches shaped by exogenous norms, which are produced by non-state actors such as those of digital disease surveillance actors, who are now able to ascertain data about diseases occurring within sovereign borders and apply normative

pressure states to report.

Apart from the obvious norm of states being expected to adhere the revised IHR (2005) (Stevenson and Cooper 2009), four further norms emerge in GDG, which are important for understanding the implications of this governance framework on sovereignty:

1) Ensuring global health security

One of the key norms of GDG is the over-riding need to ensure global health security. The IHR (2005) connects global health to security, economic, development and human dignity interests. According to Fidler, this constitutes one of the most radical governance innovations since health diplomacy began (Fidler 2010). However, Kamradt-Scott and Rushton (2012) argue that the IHR (2005) represent a significant change to the normative framework that underpins global health security, and that the expectations the new rules place on states are substantially different. Although it appears that global health security is prioritised, this norm may actually indicate the structural underpinnings of the GDG mosaic as western centric. As shown (p.13), those diseases which constitute a potential threat to global disease control are those which pose pandemic potential and risk (Western) economic stability, accordingly, this may imply that the concept of global health security is inherently a Western concept. This is no less apparent than in the revisions to the IHR (2005) where emerging infectious diseases have been prioritized to the level of existential threat to global health security (Davies 2012). This is in contrast to those which represent the greatest burden of disease globally or those which may reduce quality of life or threaten economic development in parts of the global south.

Equality among sovereign entities has always been a convenient fiction that has never been backed by realities because some powers have been more dominant than others and therefore have been explicitly or implicitly charged with suggesting the agreed norms of behaviour (Deng 1994:33). As a consequence of this (Westernised) norm, the diseases that have been the focus of GDG efforts have been Influenza Like Illness (ILI) and other diseases of pandemic potential. Through the internalisation of this norm, non-Western states have an obligation to the global health community to prioritise diseases which may not pose the greatest concern domestically. This norm may challenge the sovereignty of non-Western states as they are not afforded the right to be able to choose which disease to prioritise for

their populations. However, as will be shown the non-Western states analysed (Thailand and Lao PDR) have internalised this Western centric norm of ensuring global health security in order to continue to receive donor support for disease control efforts. As such, internalising this norm does not challenge their sovereignty, but allows them to exercise their sovereign decision-making to welcome external resources into their domestic apparatus.

A further example of the normative promotion of global health security is the collective understanding that any system of global disease surveillance is only as good as its weakest point (i.e. a poorly functioning system in any one state can risk health security elsewhere in the globe). This normative shift can be witnessed by examining Western states assisting their counterparts in the global south to improve their disease surveillance infrastructure, so that any gaps that exist in global health security protective bubble are narrowed (Interview, Lead on IHR, WHO, 21st September 2012). Ensuring global health security requires states to work in partnership with each other and a range of other non-state actors in the aforementioned GDG framework (Youde 2010:27)²⁰.

Furthermore, as part of this norm prioritizing global health security, the WHO has been authorized to perform a wide range of activities commonly associated with state authority such as intelligence gathering, diagnostics and containment of an outbreak (Davies 2012). The WHO argues that states have recognized that its primary role is to maintain global health security through its global health surveillance and response activities (Burns 2006). Evidence of this normative shift to promote health security can also be seen in the unprecedented role the WHO played in the outbreak of SARS (2002/3). During this outbreak when the security threat was established as ever present (i.e. It had reached the West in Toronto) the WHO issued travel advisories, acting beyond its remit and beyond the sovereign boundaries of its member states. The fact that states did not challenge this, but rather heralded it as a new stage for the WHO's role in GDG (Kamradt-Scott 2015) highlights how protecting global health security has been fully incorporated into expected behaviour of states, and appear to have altered their sovereign expectations accordingly.

²⁰ Although there are still considerable gaps in this, such as witnessed during EVD, where states did not have prior external assistance

2) Collective action for greater surveillance and awareness of outbreaks / transparency

A second key norm, although very technocratic, and closely linked to the norm of global health security, is that of collective action for greater disease surveillance and global awareness of outbreaks. The IHR (2005) require a much more proactive and expansive notion of what effective surveillance entails (Youde 2012:125), and their success depends upon states adopting this norm and instigating the necessary infrastructural changes (Davies and Youde 2013). The norm assumes that collective action and an open, transparent approach to disease surveillance remains the greatest method of achieving effective disease control and governance, and that all states share this vision (Heymann 2009 in Kamradt-Scott 2010). The ability of the WHO under article 9 of the IHR (2005) to gather surveillance reports from non-state sources is one of the key distinctions between the former and the revised IHR treaties and represents this new norm in GDG (Kamradt-Scott 2010). As disease has become increasingly considered as a security threat, it is not just the WHO that wants to know about an outbreak that could risk health and trade, all states, non-state actors and particularly industries want to know about this, and they especially want to know if it is on their border (Davies 2012). Connected to this is the ability of all pertinent disease information, to be shared through a range of actors involved in disease governance to spur rapid response activity from the most suitable partner (where necessary). Furthermore, the increased means of obtaining disease surveillance data has strengthened the relationship between the WHO and states, as it has encouraged greater sharing of information. These non-state actors can also be seen as a supporting link to strengthen and triangulate the relationship between the key actors in the GDG mosaic (Interview, Senior Official, HPA, 14th January 2013). As such, it may not be that greater involvement of non-state actors challenges sovereignty norms, it just strengthens the relationship between multiple actors, allowing states to maintain their power amongst others.

3) Greater reporting of outbreaks

The enduring commitment to reporting outbreaks of infectious disease to the WHO (and to each other) has also increased in the last decade, and represents a pertinent norm for global disease control which has become internalised by most states (Kamradt-Scott and Rushton 2012). The new norms of global disease control tell actors that any new infectious disease with the potential for international spread must now be reported promptly to the WHO,

which is then empowered to share this more widely (Heymann and Rodier 2004b). This should be done in spite of the economic consequences that could occur; those which may have previously given states cause to consider not reporting (Heymann 2009 in Kamradt-Scott 2010).

Prior to the development of this norm, there were considerable instances of states withholding information about potentially globally significant outbreaks for fear of socio-economic fall out. This includes China's failure to report the SARS outbreak in a timely manner, as well as several states continuing withholding information relating to the prevalence of cholera in their fishing communities (Ofori-Adjei and Koram 2014, Griffith et al 2006, Hays 2005: 351). Governments reporting cholera, for example, indirectly admit to having their water supply contaminated by faeces and therefore run the risk of severe economic repercussions, such as restrictions to food export and tourism losses. As such there are strong disincentives to not report (Griffith et al 2006). *"Failure to report promptly need not be an arbitrary measure or a sign of misunderstanding the concept of surveillance, it is sometimes an unfortunate but necessary means of self-protection against requirements imposed by other countries, which bring a severe penalty through loss in trade, tourism on the reporting state"* (Velimirovic 1976:479-80).

Interestingly, not all states have internalised this norm to the extent that the GDG discourse would have you believe. When MERS-CoV was first detected in Saudi-Arabia, the physician who detected it was fired from his job when he reported this outbreak (Sample 2013), showing that this state had not internalised this norm of rapid reporting, despite functional surveillance capabilities. Similarly, despite EVD occurring in December 2013, the Ministry of Health in Guinea did not report the outbreak to WHO until March 2014 (Stocking 2015), however, this has been attributed to weak surveillance infrastructure within the state, meaning that they were unable to detect the outbreak occurring, rather than a political decision to withhold such information. Either way, these examples show that despite increasing legislation and normative changes to globalise disease control, states can still assert their sovereign decision-making in contrast to these norms of reporting, by deciding to not report, or not fund infrastructure to detect disease. However, in asserting sovereignty in this way, a state might put its population at risk from weak adherence to understandings of effective disease control, which might jeopardise their sovereignty in another way.

Furthermore, although the IHR (2005) require states to report outbreaks, the WHO secretariat recognise that international law will not force states to report, as there are no legal repercussions for not doing so. However, as highlighted by Price-Smith (2009: 143) the risk of not reporting has become greater than the risks of reporting. The WHO has tried to show that reporting makes 'good sense' by reminding states that inaccurate rumours of an outbreak can be more damaging than the outbreak itself, and it is in a state's interest to report accordingly (Interview, Lead IHR, WHO, 21st September 2012; Interview, Epidemiologist, WHO, 21st September 2012). As one of the key WHO norm entrepreneurs stated:

There are no police or fines here, these are, however, strong incentives for countries to comply. In today's information society, you cannot ignore or hide a problem for very long. You can perhaps ignore or hide it for a day or two, but after a week it's virtually impossible. WHO and its partners have a powerful system of information gathering intelligence that will pick up anything immediately. Today events are often initially reported, not by a member state, but by non-official sources such as the media, NHOs, our network of collaborating centres, laboratory networks and partners in the field. I don't know of a single country that is keen to report a problem, and you are right, the first reaction is to say let's wait and try to control it, we won't notify immediately, but in a matter of days WHO will know anything then according to IHR, WHO will request the country to verify the event and acknowledge receipt of this request within 24 hours. One of the incentives for countries to report such events is that these will already have been reported via the electronic highway. We will be in a much better position to help if we have been involved early on the infected country. The fear of being named and shamed by the media and other countries concerned by the situation is in itself an incentive. (Rodier 2007:1).

4) State responsibility to the norms of disease control over state sovereignty.

Most importantly for this thesis, a norm has arisen as part of the shift to globalise disease surveillance and control, which is the understanding that states should prioritise being a responsible public health player and ensure a commitment to global health security over state sovereignty (Heymann 2006, Chan 2007). This is not globally accepted, as will be shown in the case studies, and it remains the key area where the tension between the

norms of GDG and state sovereignty is witnessed²¹. It could be argued that the whole concept of norms - and the degree for outside (mutual) consensus to act as an authority in determining the appropriateness of particular measures domestically would, in all instances, have implications for sovereignty. For example, the fact that considerable authority has been ceded by states to the WHO in disease control inherently implies a relinquishing of an element of state sovereignty due to a sense of responsibility to the global community (Kamradt- Scott and Ruston 2012).

States are expected to strive to protect population health not only within their respective territorial jurisdictions, but the broader global population also (Stevenson and Cooper 2009). The notion of a shared responsibility in ensuring global health security, such as heralded by WHO Director General Margaret Chan in her statement relating to the outbreak of EVD (WHO 2014) and in 2007 (WHO 2007: vii) has blurred the concept that states are independently sovereign and reign supreme over their territories and people, free from external influence (Heymann 2006). Moreover, the action taken by the WHO and its member states by ratifying the revisions to the IHR (2005) suggests that the threat of an infectious disease outbreak is great enough that it warrants a response beyond the sovereign state. This argument places sovereignty second to epidemic control (WHO 2005b). While the aforementioned norms have been institutionalized through their inclusion in the IHR (2005), adherence to them requires that states recognise the legitimacy of an external authority such as the WHO when formulating domestic policy relating to control of disease. This can be considered as voluntarily ceding elements of state sovereignty (Stevenson and Cooper 2009; Krasner 1999), and as such constitutive of this new norm of prioritisation of global disease control. Fidler even suggests that this understanding represents a post-Westphalian shift in the governance of disease outbreaks (Fidler2004). However, this thesis does not understand sovereignty in such binary terms (p. 93) and suggests that the state decision to prioritise global norms, such as that of responsibility, may actually represent a state's reassertion of their sovereignty to choose how to designate disease as a security threat. It is this last norm which will be analysed in greater detail through this thesis.

²¹ Stocking et al (2015) highlight that in the EVD outbreak more states acted out of self-interest, rather than showing that this norm had been internalised, therefore this norm remains contested

This thesis seeks to understand when and how states exercise their sovereignty when this may be challenged by GDG. However, instead of concluding that this norm has been internalised by all states, the case studies presented show that this is not the case, or at least not in all instances. The case studies show that they each exhibit and this norm of responsibility to global health security only when it is aligned with their other domestic priorities. Fundamentally, global level responsibilities do not take priority over other sovereign national responsibilities. Deciding which of their responsibilities to prioritise is an exercise of a state's sovereignty and represents an insight into what sovereignty means to them.

2.5 Norm Compliance and Understandings of sovereignty.

Linked to this fourth norm of placing global health security in a position of priority, the GDG agenda, has highlighted that a state which complies with the IHR (2005) and the ensuing norms (as discussed above) should be considered a responsible, legitimate, sovereign actor.

The IHR (2005) seek to balance the sovereignty of individual states with the common good of the global community, taking account of economic and social interests threatened by disease as well as the protection of health. *The purpose and scope of these regulations are to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade (WHO 2005: Article 2).* The quid pro quo for acting in this responsible way is that traffic and trade will be protected as much as possible²².

The WHO recognises that there are inherent tensions with the implementation of the IHR (2005). As such, the WHO encourages normative understandings of GDG to minimise these tensions. For example, it highlights that there are many benefits of upholding the norms of GDG such as access to WHO technical assistance (as well as that of the rest of the global health community), access to disease pertinent information and states can develop a relationship with GOARN, WHO's one stop shop of global resources to help manage public health risks and emergencies of international concern (Youde 2010:27). This suggests that

²² Although, in the case of EVD, the IHR (2005) failed to protect Guinea, Sierra Leone and Liberia from the socio-economic impact of regular reporting of infectious disease

the WHO understands that state actions may be self-interested and prioritise other issues rather than an altruistic desire to protect global health security.

However, as with other parts of international law, there are no tangible repercussions or enforceable sanctions for not complying with the IHR (2005) or the normative framing of GDG. For example, if a country fails to explain why it has adopted more restrictive traffic and trade measures than those recommended by WHO, no legal consequences follow (WHA 2011:13). Moreover, if a state fails to report a disease, it will not face any international sanctions. The creation of these norms through standardized behaviour and their clarification into international law through the ratification of the IHR (2005) still do not ensure that all states will comply. Just as with other norms, there exists no global political authority or world government that can enforce the norms of GDG against the will of sovereign nation states (Hein and Moon 2013:3). Accordingly, it is not surprising that not all states have internalised all these norms, and nor have they implemented all the requirements of the IHR (2005), as the empirical chapters will show.

Prior to this research, the GDG framing has seen an instance of where a state has challenged these global norms, and placed its own sovereign interests above those of globalised health security. In 2007, the Indonesian government refused to share their avian influenza samples with the WHO as they feared these may be used by Western pharmaceuticals to produce antivirals which would be unaffordable to the Indonesian people. (Fidler 2008, Elbe 2010b). Indonesia considered the rhetoric of global responsibility (WHO 2007) to be a smokescreen for Western interests, rather than truly representing a global public good. Despite the comprehension that GDG cannot be top-down, and that it needs the cooperation and engagement of all actors, this has not necessarily been the case. There has been considerable criticism that GDG mechanisms have been created by Western actors and governments seeking to protect themselves from the outbreak they deem most likely to reach their shores or disrupt their economies (Davies 2010:154). This is due to the fact that the majority of fail-safes in the mechanisms have been centred on ILIs (Chan et al 2010), or those which may pose the greatest pandemic threat, rather than those diseases which may pose the greatest burden to individual states. Thus, Binder (1999) argues that the GDG framework has been purposefully designed for Western states to ensure that their populations and economies are protected. Criticism has manifested itself in the fact that this

GDG agenda may be distorting local priorities to reflect the interests of the external actors (Riddell 2008; Davies 2010:55), although as argued in the conclusion (p.254) and as Rushton (2011) highlights, it should be no surprise that a global systems designed to protect states from disease privileges the protection of the most powerful states in the international system.

Indonesia's conduct has been severely criticised by the WHO and the global community for challenging the norm that states must prioritise global health security over their own state sovereignty (Stevenson and Cooper 2009). The outcry by the global community shows the extent to which these norms have been internalised by (Western) states since the introduction of the IHR (2005) and how states perceive this global responsibility to protect the world from the spread of infectious disease (Davies, Kamradt-Scott and Rushton 2015). Yet, this outcry from other states may again be self-interested as the states which were most concerned about Indonesia's failure to share these samples were those which would have gained the most from them; Western states wanting to protect themselves from H5N1 through biomedical research and vaccine development. However, others supported Indonesia's claims of viral sovereignty including Thailand which recognised that it would face a similar situation if avian influenza had originated within its borders and wanted to exert pressure on the WHO to reassess the global pandemic preparedness framework (Kamradt-Scott and Lee 2011:2).

Although failure to comply with the IHR (2005) has long been considered a flaw in global disease control, it is hoped that through this newly established normative framework, states will feel compelled to maintain agreed behaviour. Ensuring the development and continuation of GDG relies on states understanding a sense of responsibility they have not only to their own citizens to limit the spread of disease within their own borders, but that this responsibility has a wider remit to include the global population, global economy and global health security. Fortunately by 2009, during the outbreak of H1N1 the majority of countries had internalized norms of GDG (Kamradt-Scott and Rushton 2012). They had represented a rational choice for some countries, based on legal obligation or short term policy objectives.

Despite the fact that the IHR (2005) create a legal position for states to deny outbreaks

occurring in their borders, the GDG normative agenda *expects* states to report outbreaks in an honest and transparent manner. Moreover, the power of news media and the pressure it can exert upon states is not to be underestimated (Keller et al 2009 in Davies 2012). In a public-health emergency, decision-makers often face political scrutiny and pressure from the public and media (WHA 2011: 27/8). However, it is not just one's citizens who will scrutinize their own government if they do not limit the spread of an infectious disease and ensure upmost security for their socio-economic status. The GDG mosaic allows the global community to scrutinize a government also. Furthermore, as the international community deems whether a state is a legitimate sovereign worthy of admission and engagement in the international arena (Davies and Youde 2013:135), a state may worry that other states will look down upon it and may prevent its active participation in elements of the international community if they are not acting as a responsible sovereign maintaining the norms for disease control (Davies and Youde 2013:135). Thus, a sense of normative pressure is created by the global community for all states to become responsible disease reporters (Chan et al 2010). However, what is noticeable is that the criteria of what makes a responsible state is not a constant, but changes over time and under different circumstances. For example, Indonesia not sharing its virus samples in 2007 was deemed irresponsible, and yet Guinea's delay in reporting EVD to WHO in 2013/4 has not been framed as irresponsible behaviour, but rather lack of capacity (Stocking 2015).

This conception of what it means to be a 'responsible' sovereign state is of upmost interest to this thesis. Chapter three will suggest that a state's individual understanding of sovereignty and responsibility will impact on individual manifestations of state sovereignty. Depending on these interpretations, a state may choose to prioritise its own sovereign interests over that desired by wider GDG agenda. This tension is examined in the following chapters, assessing the sovereign responsibilities of UK, Thailand and Lao PDR in comparison with what should be required by the GDG agenda, now there is a greater understanding of shared responsibility for ensuring global health security.

2.6 Conclusion

This chapter has offered a survey of how GDG is understood in the context of global health governance and global health security. This has been done in an effort to offer a baseline for

comparison with the empirics of this thesis. As this thesis seeks to analyse how state surveillance practices and understandings of sovereignty may be challenged by GDG, it was first important to establish what GDG is, and how it may be that states feel a pressure to comply with this multi-actor framework for disease control. This chapter began by providing a conceptualisation of what governance, global governance and GDG are. It then sought to outline the key actors involved in GDG, what their roles are within a framework, and how these roles have evolved in recent outbreaks. In particular, this chapter sought to show the continued role of the state in the GDG mosaic, not only as an actor in its own right, but through their interactions as member states of the WHO and through incorporating the work of digital disease surveillance actors and NGOs into their national surveillance infrastructure.

The second part of this chapter considered the two key elements that have allowed this framework for GDG to occur. These are legislative changes to international health law (IHR (2005)), and a shift in normative understanding amongst states and other actors as to what is now expected of them in relation to disease surveillance and response. This provided context to the formal and informal changes in GDG which some have considered a threat to state sovereignty. However, whilst this chapter has now problematized GDG, in an effort to develop a baseline to compare state activity to, it is next important to understand the concepts of sovereignty and responsibility in greater detail, to understand how states interpret these and see how these concepts may have developed amid GDG changes.

Chapter three: Constructing Sovereignty

3.1 Introduction

As was explored in the previous chapter, there now exists a GDG mechanism intended to manage the threat posed by infectious disease. The use of the term governance in this context implies that disease control has evolved beyond a state-only activity into a multi-stakeholder framework (Rosenau 1992, Harman 2012, Davies 2010, Youde 2012). This new governance mechanism has caused the questioning of the role of state sovereignty in global health relations (Dodson, Lee and Drager 2002, Aginam 2005, Stevenson and Cooper 2009, Heymann 2006). This chapter contributes to answering the research question of this thesis by reviewing what is meant by the term 'sovereignty' and how its conceptualisation or interpretation is vital to understanding how states react to the aforementioned GDG agenda.

Joffe (1999) argues that no concept is less understood and more misused in international politics than that of sovereignty. Such a statement can also be applied to the use of sovereignty in global health politics. Accordingly, this chapter first explores how the term 'sovereignty' has been used in literature on global health, and how, for the most part this term has been taken as an analytical given and interpreted in narrow terms. This thesis argues that, to date, a too simplistic understanding of sovereignty has been used in literature on GDG and disease control (and more broadly in global health). Having assessed this meaning in global health literature, the chapter moves on to analyse the use of the concept by global health policy and institutions of GDG. Whilst academic debate about the use of the term sovereignty has an important role to play in its conceptualisation, so too do the institutions that interact with issues of sovereignty in practice.

Following on, this chapter broadens the understanding of sovereignty in global health by engaging with international relations literatures on its meaning and components to see whether such analyses may help to explain state activity in relation to GDG. To do this, the chapter analyses traditional concepts of sovereignty in international relations literature. It shall then show how changes due to globalisation have caused revisionists such as Krasner (1999), Ghani et al (2005) and Lake (2003) to question what sovereignty means. It explores a range of ways to distinguish and unbundle sovereignty and highlight that sovereignty is not

an indivisible whole as it was once construed to be. Following on from this, this thesis asserts that a constructivist reading of sovereignty may prove the most fruitful for understanding the concept in terms of contemporary global disease control – in that sovereignty's meaning is, in fact, contingent upon the context in which it appears.

The second part of this chapter examines the ever-increasing re-conceptualisation of sovereignty as that of 'sovereignty as responsibility' by the WHO (and the wider GDG agenda). For the last decade, the WHO have sought to show that states have a sovereign responsibility not just to their populations to protect them from the threat of disease, but also to the wider global community to stop a disease from spreading more widely. However, just like sovereignty, a deeper analysis of the concept of responsibility shows that it is an equally contested concept. The final part of this chapter analyses the complexities of such terminology and shows that responsibility (in terms of global disease control) may go beyond just that of a responsibility to provide health security and provision to a population. The GDG regime has been clear in its vision that states and non-state actors should have a globally shared responsibility to limit the spread of disease. However, the chapter concludes that this notion of responsibility, similarly to sovereignty, is conditional context.

3.2 Sovereignty in global health literature

As with all areas of international relations scholarship, sovereignty in global health literature may not be explicitly acknowledged and like an iceberg may be hidden from view, but is nevertheless present (Jackson 1999:21). Sovereignty is often described in terms of how states interact in their relations with other states and non-state actors in the era of globalisation. The concept has been discussed by a range of global health academics such as Stevenson and Cooper (2009), Kamradt-Scott (2010), Kamradt-Scott and Lee (2011) Youde (2011) and Heymann (2006). However in each of these writings, sovereignty is taken as an analytical given, in that a state 'has' sovereignty which is being challenged by non-state actors, with the outcome of the longevity and inviolability of state sovereignty. Stevenson and Cooper (2009) in their work on global health governance in Asia claim, through empirical analysis, that state sovereignty limits the potential success of communicable disease efforts. In their interpretation, sovereignty trumps GDG. However, they offer little insight into how this sovereignty is manifested. Conversely Davies (2012b), in her work

around new norms of disease reporting, opines that states increasingly recognise a new duty to report outbreaks to the global community, and that manifestations of sovereignty have not systematically inhibited reporting compliance. Although she suggests that sovereignty has different expressions, she does not analyse how these appear. Similarly, Kamradt-Scott and Rushton (2012) have highlighted how a new norm for disease control (that of prompt reporting to the WHO) has significant implications for sovereignty. They discuss such a norm as limiting state sovereignty, but without engaging in what this sovereignty actually entails, and thus it is difficult to assess whether such a norm is a limiting factor.

However perhaps most pertinent to discussing sovereignty and GDG has been the work of Fidler (2004, 2005, 2006). Fidler states that globalisation has increased the prevalence of non-state actors in the global health landscape, which in turn has caused a substantial challenge to sovereignty and the role of the state. Using the case of SARS (2002/3) and recognising the unprecedented role played by the WHO during this outbreak, Fidler proposes that this represents a 'post-Westphalian' turn in the international relations of global health, as states are no longer the pivotal actors involved in the global disease control mosaic. He states *'The IHR (2005) reflect a governance regime in which the exercise of sovereignty by states is changed forever'* (Fidler 2005) and that in the post-SARS world *'states choose to privilege global health governance over state sovereignty'* (Fidler and Gostin 2006).

However, this thesis aims to contend Fidler's suggestion by moving away from the Westphalian / Post-Westphalian dichotomy and offer a more nuanced approach to sovereignty and globalisation's impact upon it. It attends, following Krasner (2001), that globalisation and state activity have increased hand in hand and in some areas sovereign states are even more capable than they have been in the past. Instead of being challenged by globalisation, sovereignty has expanded and redefined itself in parallel with developments in governance arrangements, with the result that the concept has moved in tandem with that of globalisation (Krasner 1999:223, Jackson 2007:144). Quite fundamentally, and recognised by Cusimano Love (2003:34), states are the gate keepers of the international system (and thus of sovereignty) and they would not accord other actors equal powers if they saw this as encroaching on their own power. A good example of this

turn in the study of sovereignty and global health has been the work of Lee, Pang and Tan (2013: 3-7), who have explored the ways by which the principle of sovereignty relaxes, clashes, converges and even evolves with governance objectives in global health in their work on Asian states. They show how at different times, different states have downplayed their sovereignty in order to receive foreign aid, have used sovereignty as a tool to advance national interests, have used it as a tool to challenge global rules and have used it as the lowest common denominator for international working. Such different interpretations highlight the context specific nature of sovereignty and show how it can be invoked for a range of purposes depending on the situation, which forms the basis of understanding of this thesis' approach to the topic. This contextual understanding of sovereignty is also apparent in global health actor's use of the terminology of sovereignty.

3.3 Sovereignty in global disease policy

It is not just academics studying global health that understand the tensions that exist between sovereignty and effective disease surveillance and response. It is important to also analyse how sovereignty is understood in policy, as it is policy which ultimately shapes the global agenda. As this thesis seeks to understand the tensions between GDG and sovereignty, it is important to understand how sovereignty is perceived by this multi-actor framework. The WHO, as a key policy making actor in GDG, understands the inherent tensions between the global and national levels of disease management. Sovereignty is a matter often referred to throughout WHO history, and it has taken on different meanings during different negotiation processes, time periods and disease outbreaks. This may be unsurprising, as the WHO is dependent on state membership, and therefore must remain cognisant of contemporary state interpretations of sovereignty for its own survival. On its website, WHO defines sovereignty as *'the right or capacity of countries to determine their own affairs'* (WHO 2015b). More specifically, it defines the concept as *"the right of the supreme political authority to unqualified and unrivalled authority over its people and land"* (WHO 2015b).

The WHO furthers its understanding of sovereignty by directly connecting it to issues of health in the term 'health sovereignty', which it suggests is *'the exercise of a state's sovereign power to protect and promote health and provide health services'* (WHO 2015b).

This recognition of the sovereign interpretations of health is furthered in the Declaration of Alma Ata (1978) that states *'All governments formulate national policies, strategies and plans of action for the health of their peoples'*. In turn this document states that *'each state has a responsibility towards the health of their people, which can only be fulfilled by the provision of adequate health and social measures'*. Furthermore, Article 22 of the WHO Constitution states that WHO resolutions will come into force for all members (WHO 1946: 22). This article was one of the most debated issues during the drafting of the constitution, as it was perceived by some as an infringement of the basic tenet of sovereignty (Lee 2009:18). As such, the WHO Constitution balances the understanding that governments have the overall responsibility for the health of their citizens, and the desire that any convention that WHO may try to implement can only come into place in accordance with each member state's constitutional process (WHO 1946: 7).

The IHR (1969) protected the sovereignty of the individual member states, but in doing so, it did little to encourage assertive actions to detect diseases (Youde 2012:121). Conversely the IHR (2005) has considerable implications for sovereignty and offers increased provisions to be given to the WHO and wider global health community potentially at the cost of 'full' state sovereignty. Sovereignty was one of the main matters of discussion during successive consultations leading to resolution WHA58.3, allowing for the updates to the IHR (2005) (WHO 2004). The legislation itself directly and indirectly covers issues of sovereignty, notably through articles 9-13 and 47-49. Youde (2012: 127) suggests that the IHR (2005) may violate basic tenets of state sovereignty; forcing states to cede significant powers to the WHO and giving the WHO unprecedented reach into the domestic policy. Furthermore, WHO field operations authorized under IHR (2005) were also a contentious topic where some states perceived draft provisions to be violations of sovereignty (Tucker 2005). This has led Mack (2006) to believe that the IHR revisions have effectively transformed the WHO from a coordinator of public health services into an international health governance body with vast powers that challenge traditional notions of state sovereignty. Beyond policy, WHO employees equally understand that their activity in global disease control is defined by the issue of sovereignty. An interview with a GOARN representative highlighted that their role at the WHO is there to support, offer technical advice and develop capacity in sovereign states (Interview, Head Global Outbreak Alert and Response Network, WHO, 19th September

2012).

However, this conception of sovereignty championed by the WHO implies that the WHO has the power dictate to states, as independent sovereigns, whether and how they provide disease control efforts. If a state has supreme and unrivalled authority over its territory, then a state could (legitimately) decide not to provide healthcare to its citizens or disease control measures within its borders. This is where the WHO conceptions of sovereignty can be seen to entail an inherent understanding of external factors of responsibility (as will be discussed in the chapter). Interestingly, this refers both to a responsibility for a state to protect its own citizens from health issues or threats, but also in recent years it has implied a responsibility to global citizens to ensure that disease is not spread unnecessarily. The WHO has promoted this interconnection between sovereignty and responsibility through its policies and interactions with other actors in the GDG landscape (p.98).

This thesis contests Mack's (2006) criticism of the WHO for using its political power acquired during the SARS fiasco as an enforcement mechanism to assert control over its member states, depriving them of much of their state sovereignty over domestic health issues through the championing of this new vision of GDG. The WHO is very aware that state sovereignty is one of the biggest challenges to lasting global health security, and thus tries to find innovative ways for framing the issue, such as linking security to responsibility in order to promote the IHR (2005) and the normative framework for disease control.

This chapter seeks to explore sovereignty (and responsibility) in greater detail, so as to offer a new insight into the debates about GDG and the tensions with national sovereign priorities. The next section of the chapter will unbundle the concept of sovereignty drawing on literatures from international relations. The literature and policy in global health to date has taken a too narrow understanding of sovereignty, and therefore this concept needs to be explored further to understand the role of sovereignty in the GDG mosaic. The remainder of this chapter seeks to offer a theoretical framework to understand the actions of the three case studies; UK, Thailand and Lao PDR in challenging the norms and legislation of GDG.

3.4 Sovereignty in International Relations: The Traditional Reading

In international relations literature and government policy, sovereignty has provided the basic rule of co-existence of states in the traditional analysis of the international system and it is frequently invoked as a quality that must be defended (Lake 2003, Jackson 2007: 6). It was thought to have arisen in modern political thought around the Treaty of Westphalia (1648) to denote (in the most simplistic understanding) the existence of a supreme authority over a certain territory (Lake 2003:306). Although some have challenged the historical accuracy of the Westphalian myth, it provides the first understanding of the right for states to be independent from each other, to choose how to be ruled and to have religious freedom (Osiander 2001, Teske 2009).

Sovereignty is often defined as possessing four key concepts (Cusimano-Love 2003:3, Lake 2009). Firstly, a sovereign possesses the *'final and absolute authority within a given territory'* (Hinsley 1966:26), or to paraphrase Harry Truman, sovereignty is *'where the buck stops'* (in Lake 2009:46). This represents an authority relationship between a state (or its government) and the population (Lake 2003: 304). As such, sovereignty requires a single political hierarchy reaching its apex in the 'sovereign' (Lake 2003:306). Moreover, sovereign states are individually responsible for looking after their own security, welfare and ultimately survival of their populations. States develop their own strategies, chart their own course, make their own decisions about how to organize their internal and external problems, persona, and interactions and crucially whether to seek assistance from others (Sorensen 1999:178, Hobbes 1996, Rosseau 1998). For such a hierarchical relationship to be maintained there must be a people conscious of itself and its power as a people and collectively ready to believe and act as if sovereignty were vested in the state (Pemberton 2009:18). In the liberal-democratic model, this is seen through the process of elections, with a people choosing how to collectively organize their state and political authority and to whom they wish to delegate such political control and legitimacy. Accordingly, voters demand that their elected representatives act to mitigate the effects of natural disasters, bank failures, social disorder and public health including protection from the threat of disease (Pemberton 2009:31). Due to the range of actors in GDG, this tenet of sovereignty does not represent contemporary understandings of the concept.

Secondly, external actors are excluded from exercising authority or activity within the given territory or amongst the given population. This rests on an international norm of non-intervention. No state can legitimately intervene in the domestic affairs of a sovereign state (this is often synonymised with Westphalian sovereignty) (Brown 2002:35). As stated by Oppenheim's International Law, non-intervention is a corollary of every state's right to sovereignty, territorial integrity and political independence (Chatham House 2007: 428). International Courts have also weighed in on this trait of sovereignty, such as during the 1986 judgement of the Nicaragua Case *"The principle of non-intervention [so said the Court] involves the right of every sovereign State to conduct its affairs without outside interference; though examples of trespass against this principle are not infrequent, the Court considers that it is part and parcel of customary international law. [...] international law requires political integrity [...] to be respected"* (Chatham House 2007: 3). As shown (p.58), the IHR (2005) make suggestions about how disease surveillance should be conducted within states, and thus actively challenges this tenet of traditional sovereignty.

Third, sovereignty is often considered to entail formal equality among states, or rather international recognition as an independent sovereign state (Hinsley 1966, Jackson 2007:6). In other words sovereignty can be conceived of as a ticket of general admission to the international arena (Fowler and Bunk 1995:12). A sovereign state needs to be recognised as a sovereign state by other sovereigns to confer legitimacy. This inter-subjectivity can be seen in the fact that Islamic State is not considered sovereign, despite meeting the aforementioned criteria (absolute authority and debated non-intervention by other actors). However, North Korea, despite considerable concerns about its human rights abuses is considered a sovereign state, although a pariah at that. Linked to this is the consideration that all sovereign states are considered equal amongst others. They may vary in material capabilities or size, but as a sovereign state they should all be afforded the same consideration of these components, such as being able to enter into international organisations or ratify international treaties²³. As such, at the WHO level, all sovereign states have an equal voting opportunity at the WHA. However, Clift (2014: 15) highlights the politicization of the WHO activity and the Orwellian problem that some actors are more

²³ This concept is often contested, and as will be shown through the course of this thesis, although there may exist the appearance of equality amongst sovereigns in international customary law, it may in fact be that some sovereigns are more equal than others.

equal than others besets negotiations at the WHO. Furthermore this tenet of sovereignty does not account for states that are not offered the same voting position at the WHO, such as Taiwan and Palestine, as this cannot adequately explain sovereignty in GDG.

Fourthly, sovereignty is considered indivisible and an absolute. A state either has sovereignty or is not a state. As Grotius wrote “*sovereignty is a unity, in itself indivisible*” (quoted in Keene 2002:44). This implies that all of the above tenets of sovereignty are required for that state to be seen as a sovereign. A sovereign state must have absolute control over domestic affairs, not allow third parties to interfere in the state and to be recognised as an equal amongst other states. If it fails in any of these attributes, then the state cannot be recognised as sovereign²⁴.

As traditional approaches to sovereignty understand the concept in absolute terms, in that it is either there or not, this reading of sovereignty appears no longer suitable to explain the continued existence of sovereignty in conjuncture to globalisation and GDG. For example, this approach cannot account adequately for the role of international organisations and non-governmental organisations involved within the domestic arena of the state, as is prevalent in GDG. Furthermore, it cannot account for the inequality which can be witnessed through GDG between Western states and the rest of the world. Moreover, in the case of global disease control, this model of sovereignty cannot explain the longevity of states in the framework of disease governance when states often lack the technical and financial capacity of other actors. To fully understand the state’s malleability in global disease control requires a different reading of the concept of sovereignty.

Sovereignty has been a much contested concept in more contemporary international relations literature – in that it is not easily defined and difficult to attribute to one definition. As Krasner advocates (2009: 107), the growing disjuncture between the nature of sovereignty in the contemporary world and functional objectives, both security and economic, suggests that it is time to reflect on what has previously been taken as an analytic given and explore the nature of sovereignty. By considering alternative approaches to the traditional understanding, this thesis hopes to explore a more nuanced role of the state in

²⁴ For example, if we take the case of Taiwan or Palestine whilst they may seek sovereign statehood, failure to be recognised as equal partners on the international stage, as well as an inability to halt foreign intervention in their domestic affairs due to various reasons implies that they are yet to be considered sovereign.

global disease control, and that sovereignty can have a range of meanings, depending on context.

3.5 Unbundling sovereignty

In contemporary international relations literature, the traditional view of sovereignty has been challenged for not taking the realities of globalisation into consideration and its impact on sovereignty. In an interconnected world with an increasing number of non-state actors playing an important role, the state has had to reconceptualise itself. Revisionist international relations literature offers a considerably broader understanding of sovereignty, and such analysis may offer greater insight to discussions around state activity in GDG.

As predicted by EH Carr (1964: 231), globalisation has caused the concept of sovereignty to become increasingly blurred. Scholars such as Krasner and Lake argue that even before the era of globalisation, there has never been some ideal time during which all, or even most, political entities conformed to all the characteristics associated with traditional interpretations of sovereignty (Krasner 1999:238). Importantly, they suggest that any notion that sovereignty is indivisible is inherently flawed in political analysis. The assumption of indivisibility of sovereignty was merely a political aspiration of a normative programme of would be state builders who wish it were so (Lake 2009:46). In fact, as stated by Walker (1993: 166) *“there has never been a time when sovereignty can be interpreted in these terms, and the very attempt to treat sovereignty as a matter of binary division encourages a certain amount of amnesia about its historical and culturally specific nature”*. Empirical examples of when sovereignty’s indivisibility has been challenged include the US involvement in Panama (1989-90), Cuba (1898 – 1959) and Nicaragua (1912-33) and the USSR’s involvement in the Eastern Bloc (1939-89). Similarly actualities of sovereign lending and human right’s concerns challenge this indivisibility (Krasner 1999). As this thesis seeks to demonstrate, in the field of global disease control, the term sovereignty cannot be seen as indivisible as the concept often infers an absence of at least one of the tenets of sovereignty (such as non-intervention in domestic affairs), and moreover it can be interpreted into a range of meanings based on the theoretical context in which it is used.

One traditional tenet of sovereignty, authority, can be disaggregated into pieces defined by policy or issue area, and deferred to different actors responsible for that domain (Lake 2009:48). In the area of disease control, this could be seen by the involvement of the WHO, NGOs or private medical providers in domestic health policy issues. In this instance, sovereignty can be understood as a bundle of authorities that can be divided up among different levels of governance and different actors. Authority over some areas (use of force, foreign policy) may be reserved by the state, whereas others (health, education) may be transferred to another state or non-state actor such as the private sphere or an international organisation (Krasner 1999, Lake 2009:3). In the case of disease control, authority over undertaking surveillance may have been distributed to the WHO, NGOs or digital disease surveillance organisations. Yet, authority over the response to an outbreak rests with the affected state. This highlights that traditional views of sovereignty may no longer offer a fruitful explanation as states have frequently departed from the principle that external actors should be excluded from their authority structures. These external actors do not suffer at the existence of the sovereign (which they would if sovereignty were indivisible) but form part of the larger social contract between state and population in offering the best provision of health security and represent a shift towards multi-stakeholder frameworks of governance rather than the focus remaining with individual governments (Lake 2009:49).

Instead of remaining indivisible, the concept has been divided up, with distinctions being made between its various characteristics; political, legal, economic, external and internal. This division can be used to understand sovereignty's different interpretations, based on the context in which it is being used. Despite the plethora of revised interpretations, one area of regular convergence is that sovereignty has a duplicity or multiplicity about it, in that it cannot be defined as one dimensional. This will be shown throughout the empirical chapters. As Philpott highlights, the concept of sovereignty is by its very nature Janus-faced (in Jackson 1999:103), and sovereignty faces an inherent dichotomy, that of the division between *internal/external* (Lake 2003), *de jure/de facto* (Ghani et al 2005) or *international legal/Westphalian/domestic/interdependence* (Krasner 1999). Whichever terminology is preferred, the inference still pertains, that in order to understand the concept of sovereignty, it is important to understand these variations and unbundle them from each

other. More specifically, in order to understand GDG and compliance with IHR (2005) despite no sovereign obligation to do so, it is important to analyse the context specific nature and potential divisibility of sovereign traits.

The first potential area of divisibility of sovereignty is that of the distinction between its internal and external faces (Lake 2003). Internal sovereignty requires effective control over and within a given territory by state infrastructure. Externally sovereignty entails the recognition by other similarly recognized sovereigns (Lake 2003). This understanding simply adds greater nuance to the traditional concept of sovereignty. Internal sovereignty infers that a state is responsible for the domestic affairs of its people and territory. It refers to a political order in which sovereignty fulfils an analogous function to that of a no-trespassing sign standing at the perimeter of a piece of property held under domestic laws (Clapham in Jackson 1999:103). This strand of sovereignty defines the highest authority within a state. In centuries past, the highest authority was the monarch or sovereign; today it is usually the executive arm of the government. Internal sovereignty further implies a hierarchic relationship between the sovereign and its people, whoever they may be, but premised on the fact that the sovereign will govern internal affairs and protect its population and territory. In disease control internal sovereignty allows the state freedom to decide public health measures within their borders, free from external pressures and international consensus on how best to manage an outbreak. However, as shown in chapter two (p.41, there are a range of actors involved in GDG, and although they function with the explicit authorisation of the state (i.e. the state welcomes them into the public health infrastructure) this does not mean that the state is consulted in all areas of disease control. This internal sovereignty will be shown as a key analytical tool for understanding domestic infrastructure for disease control in the three studies. The UK shows 'strong' internal sovereignty as it does not need to welcome external actors into its disease control efforts. Thailand focuses attention on internal sovereignty, highlighting the external risk of disease and migrants to its domestic affairs, however, ultimately it does welcome external actors to support its disease surveillance, suggesting that some of its internal sovereignty is relinquished to others. Lao PDR, conversely, cedes a large portion of its internal sovereignty to external actors as it is unable to manage effective disease control on its own.

In this binary division, external sovereignty implies a relationship of formal equality internationally. It looks to an international system in which recognized “*sovereign statehood serves as the admission ticket to the system of international actors accorded to a state, and simultaneously denied to non-sovereign entities*” (Clapham in Jackson 1999: 103). In other words, sovereignty entails the recognition by other similarly recognized states that this entity is ‘one of them’ and, thus, external sovereignty is an inherently social and relational concept (Bull 1977). Jackson (1990) refers to this as juridical sovereignty, and Krasner (1999) as international legal sovereignty. The way that states realize and express their external sovereignty is through participation in regimes and organisations that regulate and order the international system. (Chayes and Chayes 1995: 27). States must be recognized as a juridical equal to obtain membership to these international bodies, but also they represent the forum for exercising one’s sovereignty in international bargaining (Chayes and Chayes 1995:27). States must have external sovereignty (i.e. be recognised by each other) to be able to join, ratify and enjoy the benefits of being a member state in an international organisation²⁵. Individually, states might not be able to control international organisations and may have to relinquish parts of their internal sovereignty in order to ratify international treaties. However, international organisations are a product of external sovereignty even if they sometimes undermine internal sovereignty (Krasner 2001). Extended into the later literature on institutions, the observation that states might adopt policies of international organisations that would tie their proverbial hands became, not an infringement on sovereignty, but rather its manifestation (Lake 2003:307). In terms of GDG, a manifestation of a state’s external sovereignty can be its membership of the WHO, the ratification of the IHR (2005), the recognition of and by other states of a legitimate disease control infrastructure or by providing a function in other global disease control initiatives. Each of the states analysed exhibit clear manifestations of their external sovereignty through their engagement in GDG. By meeting requirements of the IHR (2005) and internalising some of the norms of GDG, states show themselves as externally responsible sovereigns, manifesting the collective understanding of how GDG expects states to act in

²⁵ Here again we can witness the difficulties with designating states such as Taiwan and Palestine as sovereign states as they are not afforded equal status at international organisations, such as at the WHO, where they are only entitled to observer status.

disease control. As such, the distinction between internal and external sovereignty will provide a useful division for sovereign analysis in the empirical cases.

A second expression of sovereignty's divisibility is the work of Ghani et al (2005). For them the distinction exists between de jure and de facto sovereignty. De jure sovereignty (which could be understood similarly to external sovereignty) refers to the legal position of states as sovereign, legitimate independent states. Conversely de facto sovereignty (internal sovereignty) refers to the actual ability of states to what is expected of them including monopoly of the means of violence, administrative control, provision of infrastructure and services or even freedom from the threat of disease through strengthened disease surveillance (Ghani et al 2005). They claim that often, in low income states, a clear distinction or 'sovereignty gap' exists between these two faces of sovereignty which need to be accounted for. This gap measures how far short a state falls in performing its basic functions (de facto sovereignty) presumed by de jure sovereignty. Evidence of this sovereignty gap can be seen in interactions with GDG. For example a state may have ratified the IHR (2005) and agreed to the core competencies entailed with its powers of de jure sovereignty. However, they may lack the financial and technical resources to implement them and offer their citizens an effective public health infrastructure (de facto sovereignty). This can be seen in Sierra Leone, Liberia and Guinea, who all ratified the IHR (2005), but have lacked the capacity to meet the legislative requirements, and thus were unable to detect, monitor and respond to the outbreak of EVD in 2014. This sovereignty gap can also be seen in the case of Lao PDR. To further this analogy of a sovereignty gap the size of this gap could be quantified based on the adherence to IHR (2005) through analysis of the state parties' self-reporting (WHO 2015f)²⁶. However, this sovereignty gap fails to acknowledge the innovative governance framework inherent to global disease control. Therefore this dichotomy of de jure and de facto sovereignty may not prove a useful tool for analysis in this empirical setting of GDG²⁷.

²⁶ Although there are inherent problems with this document as it is based on states self-reporting their adherence to the IHR (2005) and therefore it may not be representative of what is happening on the ground.

²⁷ To date, the sovereignty gap has not been identified in global health as a concern warranting intervention. Taking the approach of Chandler (2009) the GDG agenda or the WHO could take any sovereignty gap to question the state's capacity to govern, if they are unable to provide basic healthcare and disease control requirements, which then constitutes a security threat to the globe, and step into this governance role. There is no concrete evidence of such a move, although Stocking (2015: 7) has suggested that there should be a

A third interpretation of sovereignty is the work of Krasner (1999) who offers a more complex valuation of Lake's dual terminology by considering that sovereignty has been used in not two but in four different gradations; international legal sovereignty, Westphalian sovereignty, domestic sovereignty and interdependence sovereignty. These various kinds of sovereignty do not necessarily co-vary and need to be unbundled from each other (Krasner 1999:4). In his understanding of this multifaceted concept, domestic sovereignty refers to how public authority is organized in a state. The government has the final and absolute political authority, with the state being organized in whichever way they should chose; federal, constitutional monarch, communist state etc. (Krasner 1999:11). In terms of this analysis, this means being able to decide how to implement disease control, and can be most closely associated with the aforementioned internal sovereignty, which provides a useful tool for this thesis.

International legal sovereignty refers to the external status of a political entity in the international system. It implies recognition by other states with reference to a particular territory and formal juridical autonomy in international organisations. It is in essence the necessary requirement for a state to be seen as legitimate and similar to external sovereignty (Krasner 1999:17). In disease control, this would imply the ability to ratify the IHR (2005) and join international organisations, involved in disease surveillance and response such as the WHO, which will also be seen as a useful tool for this thesis.

Westphalian sovereignty refers to the aforementioned traditional sovereign tenet of non-intervention. This based on two key principles: territoriality and the exclusion of external actors from domestic authority structures (Krasner 1999:20). This branch of sovereignty is violated when external actors influence or determine domestic authority structures. For the purposes of this thesis, this can refer to the involvement of non-state actors or other bilateral / multilateral state parties in disease control such as NGOs, WHO, academic institutions, digital disease surveillance actors etc. As the previous chapter has shown, the GDG mosaic involves a whole range of actors, therefore this does not adequately explain contemporary sovereignty.

greater role for the WHO and its member states to ensure the scaling up of effective disease control in weaker states.

Finally, interdependence sovereignty is embodied in the ability of a state to regulate the flow of goods, persons, pollutants, diseases and ideas across territorial boundaries. As the world is ever globalising this refers to trans-border threats to state integrity, with some issues challenging domestic sovereignty and requiring a multi-stakeholder response. This is evident in the control of infectious disease which increasingly requires a cross border, or global response and the substance of this thesis. To sustain interdependence sovereignty for disease control, states would be able to chart their own response patterns, and adopt any travel, trade or other restrictions as they wish to stop a pathogen reaching their territory, which is not what is seen in the ideals of GDG.

Krasner argues that states have often had an absence of at least one of these gradations of sovereignty, and no state has ever enjoyed a full complement. However, the absence of one gradation does not imply an erosion of the others, even though they may be empirically associated with each other (Krasner 1999:24). Once sovereignty is divided into these components and each is evaluated separately, policy makers can then be innovative about institutional arrangements, designing gradations of sovereignty rather than treating it as an all or nothing proposition (Keohane 2003: 277). However, these suggestions for unbundling sovereignty do not offer a suitable interpretation for the emergence of GDG or for state compliance with IHR (2005) and the associated norms, as described in chapter two. Although concerns were raised by Fidler (2004) that internal sovereignty and a state's autonomy in managing disease would be challenged by the introduction of the range of new non-state actors into disease control, this has not been witnessed in all cases. Not only does each non-state actor fundamentally need state permission to enter a territory and function within the public health infrastructure in response to an outbreak, but the evidence provided in the empirical chapters shows that all states have worked with these actors, understanding their role as supplementary to, rather than replacing, their state infrastructure. Furthermore, GDG does not impinge on external or international legal sovereignty as states are still maintain their legitimacy in each other's eyes as independent sovereign actors, although as will be shown (p.253) not all states enjoy equality in the agenda setting of GDG.

The only area where there may be some traction in using this understanding of sovereignty is in the case of Krasner's sobriquet of Westphalian sovereignty. Non-state actors do

intervene in state practices for disease control. NGOs, academic institutions, and digital disease surveillance organisations now pervade state boundaries and operate within sovereign territories. The former rely on state mechanisms to work within their borders, such as visas and tax registration. Several examples in this thesis show states willing to involve other actors in this sovereign authority in disease control (p.139, p.178, p.220), such as to request technical institutions to type viruses, or for NGOs to lead response teams in an outbreak. However, digital disease surveillance organisations do not enjoy any contractual relationship with the state. Due to methods used to collect disease data (p.29) state infrastructure cannot necessarily approve or limit their activity, as most states are unable to control content generated online by individuals. Accordingly, states do not always willingly cede their Westphalian sovereignty in disease control or are able to stop non-state actors from getting involved in this field. Perhaps, more simply, states engage with these actors in order to use them for their own (sovereign) advantage, for gleaning greater information about disease prevalence and with response efforts. However, as this thesis shows, this has not caused a shift in power relations in the GDG landscape. A further approach to sovereignty is that of constructivism. This approach may provide greater conceptual validity in the example of GDG, as constructivism highlights that sovereignty is not an objective given, but produced through interaction between actors. As shown through the empirical case studies, the concept of sovereignty is subject to the context in which it is used, and for what purpose. As such, the social construction of sovereignty may explain state behaviour in GDG.

3.6 Constructivist Approach

As has been shown from the distinctions above, sovereignty is perhaps best understood as a concept denoting a cluster of related ideas rather than a single clearly defined one. Moreover, in nearly all of its clustered elements, it is a contested concept in the sense that different theoretical approaches dispute over its correct explanation, usually also disagreeing about its political relevance (Veitch, Christodoulis and Farmer 2007: 10). This thesis analyses the role of sovereignty in relation to the norms and international legislation of the GDG landscape. The aforementioned concerns with both the traditional approach to sovereignty, and the distinctions made by the revisionists suggest that a third approach is required to understand how states exhibit their sovereignty and why some states aim to

comply with GDG norms and the IHR (2005) more than others. This rests on a constructivist theory, and which will be used for the rest of this thesis. This argues that the norms and legislation of GDG have been internalised for the most part by states, but this does not represent a binary divide between engaging with GDG and enjoying sovereignty. Rather, by accepting the norms of GDG, states are able to redefine their sovereignty to include this responsibility to ensure global health security.

In constructivism, the meaning of sovereignty is largely contingent upon the text or discussion in which it figures (Sarooshi 2005:3). Constructivists have emphasized that sovereignty, in both its internal and external faces, is an inherently social concept, whose existence and content depends on recognition by and reproduction in the practice of others (Reinold 2012:1). In other words, sovereignty does not exist independently of those using or observing it and it is therefore contingent upon their understanding of what sovereignty entails. Sovereignty is a fluid concept, capable of adaptation, in any particular circumstance. This would offer an explanation as to why some states are more willing to comply with norms and law relating to disease control, as will be seen in the different approaches taken by UK, Thailand and Lao PDR.

Sovereignty has been referred to by leading constructivist academics as a social fact (Searle 1995) or as a social kind (Wendt 1999). If the natural world has brute facts, the social world exists by virtue of institutional facts; facts that are only facts by human agreement (Searle 1995: 12). Actions follow a particular pattern not because they are dictated by a higher authority or coerced by the threat of force, but because players have a shared inter-subjective understanding (Krasner 1995). When applied to sovereignty, the concept can be understood as a behavioural expectation, rather than as an analytical assumption, which highlights that sovereignty in global health is not an analytical given. Furthermore, Reus-Smit (1999) conceptualizes sovereignty as one of three elements of international societies' *'constitutional structure'* which itself is related to the varying *'moral purpose of the state embodying norms of legitimacy and rightful action to take'*. This being so, the concept of sovereignty can be viewed as fundamentally based on a collective understanding of what it means to be a sovereign - and that this understanding has been conceived ex nihilo by human consciousness starting with the Peace of Westphalia and has been re-imagined and re-consolidated until it has been taken for granted (Adler 1997:1322). Thus, it is futile to

analyse *if* states are sovereign when the reality of sovereignty exists only in its use and acceptance, which is continually changing (Werner and de Wilde 2001:304).

As such, consideration should be in the analysis of the variety of ways in which states are constantly negotiating their sovereignty (Biersteker and Weber 1996:11). This example of GDG will show through three case studies, how states interpret and re-negotiate their sovereignty in the face of changing international law and shifting normative behaviours of GDG. Instead of simply stating that sovereignty is X and thus to maintain and exhibit this sovereignty, states will do Y, it is better to understand sovereignty as a dynamic process which changes due to societal, historical and economic situations. Constructivism provides a pertinent conceptualisation to understand sovereignty in GDG because there is no overarching coherent response by all states. Rather, in different outbreaks, owing to different factors, states interpret sovereignty in different ways. Importantly, this understanding of sovereignty is not fixed or inviolable (as traditional theorists would have you believe), but is dynamic notion based on changing understandings of its meaning.

Furthermore, instead of breaking the concept down into a series of explicit, defined gradations such as Krasner and Ghani et al., the social construction of sovereignty can be understood as a constant, on-going process, for which leaders continually redefine what sovereignty means in their context and in doing so to reproduce their state's sovereignty (Biersteker and Weber 1996: 282). In this way, sovereignty is not exogenous to the system but produced through practice. This practice is formed of norms considering what a sovereign actor should exhibit and how they should act. For disease control, this includes the norms of ensuring global health security, collective action for greater surveillance and transparency, greater reporting of outbreaks and the prioritisation of the norms of disease control over those of sovereignty (p.72). Accordingly, the structure of sovereignty and what it means to be a sovereign state are not exogenously given, but emerge through a process of interaction with other sovereigns. It is through this interaction that shared meanings arise, which create the structures that successively affect behaviour and constitute identities (Wendt 1995, Aalberts 2004).

As a consequence, states cannot maintain a solipsistic outlook of what they conceive sovereignty to be, since sovereignty only gains meaning in a social context based on shared

norms and mutual recognition of their sovereignty (Pemberton 2009:5). One state may emphasize sovereignty in the GDG framework in a particular way (such as reporting an outbreak promptly) but it requires other sovereign states to recognise this manifestation of sovereignty through prompt reporting in order for it to be understood as a common thread of sovereignty. All relationships between states are managed through a grammar or syntax of sovereignty of a sort, consisting of the basic framework by which authorities relate to each other and to their citizens including a respect for sovereignty and all that it is understood to mean (Jackson 1998:9). In the case of disease control, the grammar of sovereignty entails reporting outbreaks of disease to the WHO, remaining transparent amongst other sovereign states as to one's pathogenic status and to act in a timely manner to reduce the potential for diseases to spread internationally. However, this thesis has adopted a view of sovereignty as a malleable product of human agency, not a static but a dynamic concept, a variable rather than a constant, with a range of interpretations (Reinold 2013: 15). States can manifest their sovereignty differently depending on how else a state understands its range of responsibilities. The expectations of sovereign behaviour in the GDG framework may, in fact, be trumped by other sovereign priorities.

According to constructivism, establishing shared understandings of sovereignty can change quickly. They are constantly being constructed and deconstructed through interactions between agents and structures. Neither the state nor sovereignty should be taken as a given. Rather the state as an agent and sovereignty as an institution or discourse is mutually constitutive and constantly being transformed and changed (Krasner 1999:49). This can be seen in disease control of SARS in China (2002/3) and virus sharing in Indonesia (2006/7)). Both states took a course beyond the received normative understanding of how a state should act, not reporting an outbreak (China), and not sharing virus samples (Indonesia). These state actions (or inactions) challenged the socially constructed norm of transparency and sharing in disease control. Whilst these examples could both be seen as expressions of sovereignty challenging norms of GDG (Elbe 2010, Fidler 2008, Fidler 2004), it could also be argued that such activity also reconstructed what it means to be a sovereign actor in global disease control by offering an alternative to the dominant norm. As what constitutes sovereignty by social construction is not fixed or inviolable, China and Indonesia simply exhibited a different understanding of their interpretation of sovereign disease control.

However, as a consequence of these actions by these two states, the rest of the global community reconstituted their shared understanding, or norm, of what a responsible sovereign state should do – i.e. the opposite of these states' actions. In doing so, the suggestion emerges that sovereignty in disease control entails a specific understanding championed by Western states, to entail global responsibility to ensure (Western) global health security. This framework, when encouraged in other states may represent a challenge to their own understanding of sovereignty.

Nevertheless, one criticism in applying a constructivist understanding of sovereignty to the issue of disease governance is that often the decisions made for health concerns are relegated to low politics and can be easily discarded for other issues of international policy (such as economic stability or military liaisons). However, despite the common comprehension, not all constructivism elevates norms over power and material interests (Spiro 2007:250). Indeed constructivism does not reject issues of material power (Reinold 2013:15). Constructivists argue that the deviations of exhibiting sovereignty are often motivated by pragmatic self-interest than normative principles (Lake 2003:308). Different states will strategize rationally how to make their sovereign identities and preferences in different contexts (Finnemore and Sikkink 1998: 888). They will qualify hard power and actor rationality by adding new variables such as social context and normative structure. This is particularly important in the instance of global disease control as material interests do play an important role in state's construction of sovereignty, as is evident in each of the three case studies. Although 'disease-sovereignty' might have been constructed through mutual understanding to involve increasing transparency of outbreaks, rapid reporting to WHO, compliance with IHR (2005) and ensuring global health security, these actions may not occur in practice. Socio-economic or material interests of the individual sovereign states may take priority over the normative requirement to act as a responsible state in disease control (which the empirical chapters of this thesis will show). For example, in the case of an emerging highly pathogenic organism, states may feel tension between their requirement to report and a desire to avoid the trade or travel restrictions which they may be subjected to if reported. Alternatively, a state may fear instability by reporting promptly before managing an effective response, therefore prioritising their international responsibilities over their

domestic need to provide medical assistance to those affected²⁸. Whilst states may understand that there is a mutually agreed framework for how to act, termed GDG, they may feel such tension between this and their own domestic responsibilities and internal state issues which require a reconstitution of what it means to be a sovereign in this instance. This is the crux of the argument that this thesis explores, when do states comply with GDG norms, and when do domestic sovereign priorities surpass global responsibilities? However, in order to consider this, a further interpretation of sovereignty which has been increasingly constructed through the GDG framing must be explored, that of sovereignty as responsibility.

3.7 Sovereignty as responsibility

Despite the breadth of aforementioned theoretical interpretations of sovereignty, a shared understanding of non-intervention has remained central to all (although how strictly this has been adhered to has been challenged by Krasner (1999)). However, this central idea has been challenged by a fundamental shift in understanding sovereignty to contain elements of responsibility. This re-conception of sovereignty recognizes that it is not just a blank check (Haas 2003), but that sovereignty involves inherent responsibilities which states must fulfil to be seen as a responsible sovereign. This understanding has been a key to the WHO's policies for global disease control. Davies and Youde (2013) argue that the WHO increasingly uses the rhetoric of sovereignty as responsibility to their approach to GDG and their interaction with states. The WHO recognise this themselves, stating that *'In the 21st century, health is a shared responsibility, involving equitable access to essential care and collective defence against transnational threats'* (WHO 2015c). Evidence of this rhetoric can be seen through the WHO's championing of sovereign responsibility in the *Joint Action and Learning Initiative on National and Global Responsibilities for Health* (2010) and the *Framework Convention on Tobacco Control*. Furthermore, when considering infectious disease, Margaret Chan has suggested *'when the world is collectively at risk, defence becomes a shared responsibility of all nations'* (Chan 2007) and that *'The IHR brought a clear set of*

²⁸ This occurred in the outbreak of Hand Foot and Mouth Disease in Cambodia (2012) who promptly reported the outbreak to WHO under their IHR (2005) obligations, but were not able to provide adequate health provision to the children afflicted with the disease, who were left to be treated by a local NGO; Kantha Bopha.

obligations, channels of communication and coordination, and mutual accountability' (Chan 2010).

Beyond rhetoric, the WHA (2002) urged states to ensure that they have in place national disease surveillance plans which compliment global disease surveillance mechanisms and collaborate in the rapid analysis and sharing of surveillance data of international humanitarian concern. Moreover, states have primary responsibility for strengthening their capacity building in public health to detect and respond rapidly to outbreaks of major infectious diseases (UN 2003). Further, states are expected to respond to WHO communications within 24 hours (Davies 2012b). Through such language and conceptualisation, the WHO encourages states to recognise their solidarity with the global community and uphold the core competencies contained in the IHR (2005) rather than risk being named and shamed for not being a responsible sovereign.

Such a reconceptualization of sovereignty as responsibility is meant to push states to behave in particular ways to become '*good international citizens*' (Evans in Peltonen 2013: 73). However, it is important to note that this does not represent a dilution of state sovereignty or a transfer of its meaning to another actor, but that there is simply a redefinition of what sovereignty must entail in light of contemporary political understandings (International Commission on Intervention and State Sovereignty, (ICISS) 2001: 14). There is no coercive mechanism to ensure that states comply with such a norm of responsibility, and therefore they have understood the benefits of abiding by such a principle in order to be a modern dynamic sovereign. By taking a constructivist reading of sovereignty, this allows sovereignty's meaning to be contingent on the context and to include this responsibility behaviour. This inclusion of responsibility provides suitable evidence of the manner by which the meaning of sovereignty can change over time, as it has done in the GDG framework. The framework of sovereignty as responsibility reaffirms the decision to take a constructivist reading in this thesis as it offers the most suitable framing for considering sovereignty in GDG.

This understanding of sovereignty implies an inherent sense of responsibility, and the primary responsibility of a state is for the protection of citizens and the provision of human security (freedom from the threat of disease) (ICISS 2001: XI, Sehovic 2014:1). Sovereignty in

this manifestation becomes a quasi-contractual concept, one that recognises the obligations and responsibilities of the state to the people as well as the wider global community. Following on, it can be assumed that the rights and protection citizens associated with statehood are in fact conditional and that sovereign governments would forfeit some, or all, of their rights should they not be able to provide protection and security to their population (Haass 2005). This would include their right to govern international state building rhetoric (Chandler 2009)

The linking of the concepts of sovereignty to responsibility began in the sixteenth and seventeenth centuries, when sovereigns justified their authority through their manifestation of responsibility for protecting their populations (Glanville 2011). Hobbes even refers to the end to which the sovereigns are trusted with authority is the protection and safety of the people (Hobbes 1996: 222). Interestingly, this framing of responsibility epitomizes the social contract between the state and its people (Rousseau 1998), indicative of the responsibilities inherent to internal sovereignty, in that a state has a responsibility to look after its population. However, as was shown (p.88), sovereignty increasingly is understood to have both an internal and external face. Therefore, it is not surprising that in recent decades, this sense of responsibility which appeared through philosophical works several centuries ago, has now been expanded to include an external manifestation in order to be relevant in globalised understandings of sovereignty. Sovereignty does not just entail a responsibility of a government towards its people, but that this responsibility extends both to other states (as part of the international community of sovereign states), and even to the global population, beyond that of the state structure.

This externalisation of sovereign responsibility is most commonly associated with the work of Deng et al (1996) with their ground-breaking publication '*Sovereignty as Responsibility: Conflict Management in Africa*' (1996). The premise of their argument is that there has been a continual erosion of traditional understandings of sovereignty since the end of the Cold War and that increasingly sovereignty carries with it certain responsibilities for which governments must be held accountable. This accountability is not only to their national constituencies, but ultimately to the international community (Deng et al 1996:1). Although this work is based on analysis of conflicts in Rwanda, Sudan, Somalia and Democratic Republic of Congo, the theoretical foundations of their arguments have wider ramifications

and pertinence for GDG. For example, when governments refuse to allow humanitarian relief for their citizens in time of conflict, this can justify international action to mitigate its effects (Etzioni 2006). Similarly, when governments refuse to provide effective disease control within their borders, there may come a time when this justifies international action as other actors feel a sense of responsibility to the wider global community subjected to an outbreak. This could be seen by WHO sending in field epidemiologists under the guise of GOARN, due to the risk posed to the affected state's citizens, or even by other states who fear the impact of a neighbour's inactivity on their own security. For example, during the outbreak of EVD in West Africa (2014/5) considerable foreign troops from the USA and UK were deployed to limit the spread of the disease, as the host states were unable to manage the outbreak (Kamradt-Scott et al 2015). However, it cannot be said that their only reason for doing so was on account of their sense of sovereign responsibility to the global population, but that in limiting the outbreak at the source of infection, the threat to global health security is mitigated also.

This concept of sovereignty as responsibility was further enhanced by its central focus in the International Commission on Intervention and State Sovereignty (ICISS) (The Evans-Sahnoun Commission) which assumed that states voluntarily sign the (UN) charter and therefore they accept the responsibility entailed by its membership (Etzioni 2006) *"Individual states have the primary responsibility to protect their citizens, through the sovereignty as responsibility concept – but when a state is unable or unwilling to fulfil its responsibilities, the international community has a collective responsibility to act in its place (ICISS 2001 A: 17)"*. By signing the UN Charter, it is assumed that states accept the responsibilities of membership of the international communities' approach to any particular matter, such as global disease control. Furthermore, the supposed sovereign equality of the UN charter means that no state shall be subject to international (legal) norms that it has not consented to (Reinold 2013:54). In a similar vein, the UN Secretary General's High Level Panel *'A More Secure World: Our Shared Responsibility'* (2004) stated that new norms of collective security have meant that some portion of responsibilities usually required by states to their populations should also be apportioned to the international community. Each of these proposals point to a new formulation of sovereignty as responsibility that in effect renders sovereignty conditional in that each state is expected to adhere to the global

community's evolving norms regarding what is legitimate and responsible activity for such community's survival and continued globalized working (Etzioni 2006).

Sovereignty as responsibility therefore entails both internal and external duties of states. Domestically, sovereignty is no longer the right to be undisturbed and to undertake sovereign duties as each state wishes, but it includes a responsibility to perform the domestic tasks expected of a government by the global community. Although there have been several historical examples where this has not been the case, Deng conceives that there is an obligation on all states to preserve life sustaining standards for citizens as a necessary condition of being a sovereign (Deng et al 1996: xviii). In the case of GDG, this may be viewed as including compliance with the norms of global disease control and upholding the requirements of the IHR (2005) (Etzioni 2006). However, even in this case of disease control, several states have not been able to realise this responsibility towards their people. For example, Liberia, Sierra Leone and Guinea were not able to provide their citizens with the necessary health protection to stop EVD from spreading. Whilst this has been justified as due to lack of resources, rather than malicious intent, it is apparent that there is growing disjuncture between the conceptualisation and relevance of sovereignty (as responsibility) between the GDG agenda and amongst states themselves. Indeed one could argue that a further failure is evident here, that the global community failed to uphold their responsibilities externally to assist West-Africa in combating the outbreak more rapidly.

As states are sovereigns, rather than any other external actor or the GDG regime itself, it may be that 'sovereignty as responsibility' as a framework is only able to offer rhetoric for an ideal public health response by states in the eyes of the wider global health community. Mack (2006) insinuates that the goal of linking sovereignty with responsibility in this way is that it might only be a matter of time before the relinquishment of state sovereignty for the universal good of international public health becomes part of customary international law. Whilst from a public health perspective, this would represent a breakthrough for the best public health approach to the control of infectious disease, this is very much limited by the realities of individual state priorities and actions. It requires states to be duty bound to fulfil minimum standards of health security such as those codified in the competencies of the IHR (2005) and to be accountable to the national body politic and the global community for doing so (Deng 1996:211). However, whilst Deng et al refer to a responsibility to the

community, this is not the only responsibility a state considers when interacting with disease outbreaks. In these instances, a state's responsibility is not just to their population to ensure their health, but there is also a responsibility towards wider state concerns such as a thriving economy, trade routes, tourism, regional and global stability and social standards of living, as will be shown in the three case studies.

Internationally, responsible sovereignty becomes a collective global function to be exercised according to socially constructed international principles (such as IHR) and to be shared when help is needed, or when a state is unable to provide the requisite goods to its people (such as freedom from the threat of disease). In this instance, a state can turn to its neighbours, regional partners, non-state actors or global organisations to seek help with the task that it is unable to manage. It is understood that the priority must be to provide adequate disease control to its citizens, and when it fails to do this, a responsible sovereign state should relinquish some of its sovereign power manifestations and welcome in external actors to benefit its population. This can be seen in the cases of Lao PDR and Thailand to some extent. Such an understanding has been interpreted by Krasner and Keohane as shared sovereignty. For them shared sovereignty involves the engagement of external actors in some of the domestic authority structures of the target state for an indefinite period of time (Keohane 2003:276-77). It is a voluntary arrangement by which rational actors exercise the rights afforded to them as part of their external sovereignty to enter (voluntarily) into agreements that would compromise some tenets of more traditional sovereign provision of public infrastructure (Krasner 2009:247). When states cannot do what is expected of them (such as effective disease surveillance and response), because of incapacity, then they can legitimately call upon the international community to assist them and the international community can be expected to provide the necessary public goods (Deng 1996: xvii)²⁹.

According to Evans (2008) if a state fails to live up to the aforementioned responsibilities, either through ill will or incapacity, the international community has a moral duty to intervene to pursue appropriate action to ensure that these responsibilities are upheld on

²⁹ This can be seen in the EVD outbreak when the affected states were unable to manage the outbreak on their own, and therefore they welcomed various actors into their sovereign role of disease control in order to halt the spread of the disease.

behalf of the global population (and in doing so breach the sovereign tenet of non-intervention). This evolving concept of sovereign responsibility is not just a responsibility to one's own population, or towards other states, but that sovereignty now includes a responsibility to the affected population of any government regardless of 'Westphalian' borders (Deng et al 1996: xiii). This can be closely linked with a human rights based approach to health security, in that the referent object of a security threat is the individual person, or group of people, rather than a state or group of states. Such an approach is also reflected in Article 3 of the IHR (2005) which ensures that human rights are upheld in the regulations, and that states understand this in their approach to disease control (p.62). As such, this reflects the WHO's move to champion sovereignty as responsibility as a dominant norm of GDG.

Such a normative code is anchored in the assumption that in order to be legitimate, sovereignty must demonstrate (mutually constructed) responsibility (Deng 1996: xvii). The global community expects states to bring their domestic law and conduct in line with established international standards (Etzioni 2006). In public health this includes bringing the requirements of the IHR (2005) into domestic public health legislation, as well as promoting the norms of GDG including transparency, prompt reporting and ensuring health security. However, this discourse of sovereignty calls into question certain norms embodied in the traditional institution, such as that of non-intervention (Reinold 2013:2). This reaffirms that in analysing the role of states in GDG, a traditional reading of sovereignty is not suitable. This newer, more fluid reconceptualization of sovereignty implies that states are not free agents. It supposes a (more) constructivist reading of sovereignty, in that responsible sovereigns are bound by the mutual understanding of the international community's norms of individual responsibilities. States are expected to adhere to the global community's evolving norms regarding what is considered legitimate and expected of them (Etzioni 2006:72). Increasingly these imply responsibility for the protection of fundamental human rights, but also for the provision of public goods more generally (such as for health) (Reinold 2013:7). This offers an explanation as to why this has been a chosen method for analysing sovereignty by the GDG agenda, as it offers a framework for challenging the more traditional approaches of authority and non-intervention which can lead to weak public health systems and threaten global health security. It is also apparent that this

understanding of sovereignty represents the Western understanding of how states should act. The collective behaviours that states are supposed to abide by are those which are championed by the West in their effort to strengthen their own disease security, rather than reflecting a holistic global understanding of sovereign responsibility.

Indeed, it has been suggested that by articulating norms of sovereignty and responsibility, these have become a useful tool for measuring one's own performance and the performance of others in the hierarchy of authority and control in the global system (Deng et al 1996:26). The ratification of the IHR (2005) and the requirement for states to have met certain core competencies within 5 years of implementation provide the WHO with a good measure for compliance with this norm of sovereignty as responsibility. The WHO's external consultation on compliance with core competencies (WHO 2012c) has shown that, although wider GDG discourse highlights sovereignty as responsibility as the reason for compliance with IHR (2005), states have not internalized this conception of sovereignty (Davies, Kamradt-Scott and Rushton 2015). No state had met 100% of the required capabilities in their public health infrastructure. Moreover, 106 states were so far behind with meeting their international responsibilities codified in the IHR (2005) that they requested a two year extension from the WHO. Three years later in 2015, 118 states had asked for a further extension to meet these core competencies, with only 42 indicating that they did not need any further time in order to be compliant (WHO:2015f).

An examination of implementation of this norm of responsibility reveals that, good governance notwithstanding, the large majority of states do not accept the substantial obligations that the WHO's concept of responsibility imposes on their sovereignty (Reinold 2013:87). This is due to the fact that a tension exists between the WHO which seeks to fulfil its mandate of securing the health of all, whilst states inevitably seek to secure the health of their own citizens, with this being their central responsibility (Davies 2008). Despite the popularity of the sovereignty as responsibility rhetoric as a model for GDG, traditional sovereignty norms have displayed remarkable inertia and resistance to change, as states have not been more pushed to meet the core competencies of IHR (2005)(Reinold 2013:151). This is a further example of sovereignty changing its meaning and relevance in different contexts and at different times. Therefore, this framework of sovereignty as responsibility may not fully explain how states exhibit sovereignty in a range of ways in

global disease control scenarios and negotiations. What is clear is that despite the WHO's best efforts, states remain central to negotiating amongst themselves what is implied by being a responsible state. Sovereignty gains meaning in the context where it appears, whether this entails a normative understanding of responsibility or not. This suggests that a constructivist reading of sovereignty provides the most fruitful analysis of state activity in global disease control.

However, whilst the doctrine of sovereignty as responsibility may not offer a complete explanation for any analysis of state response to the norms of GDG at the global level, it has been possible for states to realise this understanding of collective responsibility at a regional level. Such a regional 'pooling' of sovereignty may offer a fruitful solution to better manage diseases (Deng 1996:131). There are several examples of regional responsibility for disease governance, including at the EU and more relevant for this thesis in Southeast Asia. As not all states in a region have the same material or technical resources to implement sound public health infrastructure, there has been considerable cross border and regional working to improve health security in the region. This has been done to collectively strengthen regional health security and to offer an understanding of regional responsibility to one's own neighbours and own population to limit an outbreak's spread. States are newly accountable not only to their own national constituencies, but also the regional communities from which they are inseparable (Deng 1996:212). This regional sovereign responsibility can be evidenced through WHO regional offices and related regional activities which take place in the areas of surveillance, and response, including ASEAN, Asia-Pacific Economic Community (APEC), Mekong Basin Disease Surveillance Network (MBDS) and the WHO's regional iterations of the IHR (2005), the Asia-Pacific Strategy for Emerging Diseases (APSED) (p.232). Through membership of such regional initiatives, states appear to show that where cross border threats of disease are ever present, their sovereign responsibility to protect citizens may be widened to include all peoples within a region, not just a state's own citizens. An example of this pooling of responsibility at the regional level can be seen in the joint working for outbreaks of disease under the ASEAN+3 meetings, as well as the pooling of public health and financial resources in Cambodia, Lao PDR and Vietnam to meet their core competencies (under IHR:2005) as a regional rather than as individual states (ADB 2013).

Why are states happier to show a regional responsibility for limiting the spread of diseases and protecting regional peoples as part of their sovereignty, but they are less willing to do this at a global level? Whilst this will be further explored in the Thailand and Lao PDR case study chapters, two potential conclusions could be drawn. Firstly, geographical proximity and regional connectivity for other political aspects mean that states recognise themselves as part of a region. This greater sense of commonality may imply a sense of responsibility to states which they may not share with others elsewhere in the globe. Alternatively, states may embrace regional responsibilities over that of global acceptance of sovereign obligations as they may not recognise global responsibilities as truly global. It may be that they see 'global' as a synonym for 'Western'. States may feel that their sovereign responsibility should not just be towards populations of the Western world so that a disease does not reach this population. Therefore, Southeast Asian states may prefer to show solidarity with each other, and recognise that their sovereignty entails offering assistance to those on their borders, with whom they may share a whole host of characteristics, rather than to the West that may be encouraging a language of sovereignty as responsibility for self-interested reasons. This has been suggested by McCloud (1995: 338) and Acharya (2004: 250) who highlight that Western political and social institutions have tended to be rejected wholesale in Southeast Asia, and that any external norm or concept will be blended with local sensibilities and needs. Regional cooperation for disease control efforts mimicking the 'ASEAN-way' focusing on informality and non-intervention may be preferred to wider global approaches of sovereignty as responsibility on the global scale.

This chapter so far has shown that sovereignty as responsibility has been an important, but not decisive framing of state behaviour in GDG. The global health governance framework and the WHO have been keen to promote sovereignty in these terms, in order to achieve global health security. However, not all states understand sovereignty in this way at all times. Depending on context, they may understand their sovereignty or their responsibilities differently. It is important, to further explore the concept of responsibility. The next section shows that just as sovereignty becomes more complex with further analysis, so does responsibility. State actions in disease control appear to be governed by understanding of where their responsibility lies, and they use their sovereignty in order to legitimise and explain their choice of prioritisation of responsibilities. However, this must be unpacked

before any individual states responsibilities can be understood in empirical case studies.

3.8 Responsibility in global health

As discussed above, the framework of GDG is increasingly reliant on an individual state's understanding of their obligations to each other and the global community taking responsibility for emerging infectious disease. Although they have been accused of behaving like an international health police (Schnur 2006: 32), the WHO was originally described as the broadest and most liberal concept of international responsibility for health ever officially promulgated (Allen 1950:30). This term responsibility is at the heart of the WHO's attitude towards global disease control, as well as that of the broader GDG agenda. In 1978, the Alma Ata Declaration sought to create a change in how states viewed their responsibilities to their own citizens and those in other countries, moving beyond economic and political self-interest to embrace the greater good for the international community as a whole (Youde 2012:39). This was the beginning of reconceptualising health, and the state's interaction with provision of health for its citizens using the terminology of responsibility. The focus was '*health for all*', which requires collaborative working to meet such a global public good. Under the Bruntland administration (1998 – 2003), the WHO presented itself as the world's health conscience, asserting good governance principles to push the rhetoric of responsibility onto states to improve their health infrastructure (Chowdury and Rowson 2000). However, in policy and rhetoric of GDG, responsibility is taken as another analytical given, and its meaning needs to be explored in greater detail to understand how different responsibilities (at the global and national levels) challenge each other.

The framework of sovereignty as responsibility has been championed by the WHO to encourage states to comply with the IHR (2005) and wider global norms for GDG. However, as seen through a variety of examples, including the Indonesian virus sharing controversy, the EVD outbreak in West Africa and three case studies within this thesis, sovereignty as responsibility does not offer a comprehensive explanation as to why states comply (or do not comply) with norms and international law of GDG. This can be reduced to an analysis of the tension between a state's responsibilities to the international community and a state's responsibility to their domestic affairs. Just as sovereignty has been shown to have an

external and internal face, so does responsibility. Moreover, the concept of responsibility, is often taken for granted in international relations literature and its meaning taken as a given.

This thesis suggests, similarly to sovereignty, that responsibility should be understood as inherently social and relational. The term comes from the Latin 'respondeo' meaning to answer someone for something – i.e. social (for something) and relational (to someone) (Lucas 1993:5, Peltonen 2013:30). These social and relational understandings are apparent in the everyday usage of the term. For example, you can be responsible for something (e.g. Looking after a child or a pet), or similarly, you can be held responsible for an act (e.g. a crime). Responsibility can be said to reflect an '*exercise of discretion by deliberate and thoughtful decision in the light of a sound calculation of probable consequences and a fair evaluation of claims*' (Pennock 1960:13). This deliberate reflection can be seen in the decision making process of compliance with norms of GDG; whether to report an outbreak. In this instance, states have to make a sound calculation of their responsibility to share outbreak information and improve global health security, compared with their responsibility to their trade connections and citizens to limit any potential socio-economic fall out.

Another key implication for analysis of responsibility is that it is not synonymous with duty. Duties are clear cut requirements, whereas a responsibility is open ended in the sense that one must use one's judgement and act independently of others (Pennock 1960:9). This is an important inference for analysis of state decision-making in the face of an outbreak. In global disease control, when states decide how to act in an outbreak, they are not simply carrying out clear cut, simple actions, rather they have to use their own judgement and come to their own conclusions about what the best way forward may be for them in a particular context (and their domestic populations, economies, international reputation etc.). As such, responsibilities, different to duties, are inherently imprecise and situationally dependent.

This imprecise and context dependent nature of responsibility is evident in the wording of the key documents linking sovereignty to responsibility. The ICISS and the World Summit 2005 documentation use a range of qualifications for responsibility. These include '*appropriate*', '*timely*', '*flexible*' and '*tailored to circumstances*' (ICISS 2001). Choosing such subjective language for situating responsibility within that of sovereignty reflects the

context specific and dynamic understanding of what responsibility means in international relations. It is also interesting to note that the word responsibility does not feature at all in the UN Charter. Similarly, the WHO constitution states only *“governments have the responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures”* (WHO 1946:1). More interestingly, despite the rhetoric of sovereignty as responsibility present in the commentary of GDG, there is no mention of state responsibility in the IHR (2005). The only use of the word responsibility features in relation to the WHO’s overarching responsibility for the management of the global regime for the control of the international spread of disease (WHO 2005:1). This in itself acts as a reminder of the tensions between the GDG and sovereignty. The WHO, even when considered a leader in the GDG mosaic, is unable to inform sovereign states what their responsibilities should be to global health security.

Responsibility in global disease control is best understood as the collective responsibility to act against a collective security threat of an emerging infectious disease. The terminology preferred by the GDG regime infers that actions to protect a global population become a shared responsibility and priority and sovereignty becomes a privilege to those who share in this responsibility (Etzioni 2006). This is premised on the fact that states recognise they are part of an international community and that in this community there are certain understandings of what it means to be responsible in the face of transnational disease threats. As discussed (p.13), infectious diseases pose a security threat to individual states affected, but also to the globe and this can be understood as a collective security threat. Collective security enshrines that the responsibility for the protection from the threat (of disease) is held collectively rather than individual members of the community. Furthermore, the community can expect the individual member to behave in particular ways to limit the threat (Peltonen 2013:35). In doing so, the global community can ensure at least minimal health security and disease surveillance around the world to ensure global health security. It could be suggested that the normative GDG framework has this goal, enshrined in the rhetoric of sovereignty as responsibility. This can be seen in their creation of a governance arrangement involving a range of actors including states, non-state actors, international organisations and individuals personifies a dynamic collective responsibility for limiting the spread of infectious disease.

However, if responsibility, as discussed, infers the use of a state's own judgement and acting independently of others, then such an understanding may be inherently opposed to collective responsibility, leaving the concept of shared responsibility be inherently flawed. For a responsibility to be shared, each of the 'sharers' must have used their own judgments to come to the conclusion that they can and want to share in such responsibility. However, as this thesis will show, states interpret their sovereignty, and the responsibilities implied within in different ways and therefore it may be that there is never a clear alignment of what shared responsibilities may entail.

Moreover, a further problem with understanding responsibility in this collective term is that it is almost inconceivable that a collective governance arrangement is capable of bearing responsibility for particular outcomes when no individual member of that community is in any degree responsible for them (Miller and Makela 2005:634-5). Furthermore, in instances where this collective responsibility fails, who is then 'responsible' for that failure? Examining the case of EVD shows that blame is apportioned to a whole range of actors by different individuals with no one actor taking individual responsibility (Stocking 2015). Fundamentally, collective responsibility does not take precedence over the individual responsibilities of states (Peltonen 2013:42). The definition of responsibility, as discussed above, requires one's own judgement, acting independently of others to be able to assume responsibility for something. Individual state's responsibilities will be fundamentally different to that of any collective understanding of responsibility held as part of the GDG framing.

Returning to ideas about what a sovereign should traditionally do, their competing responsibilities may include ensuring territorial and physical security of the state, protecting lives and livelihoods, providing basic economic stability, health and welfare, providing authority on all issues and ensuring non-intervention (Hosle 2004). The question arises therefore, how can individual state responsibility for their internal sovereign duties become compatible with their responsibilities to the global community as part of the GDG framework? This thesis seeks to explore this question through the medium of three case studies, showing how states balance their responsibilities to their citizens and socio-economic interests alongside their responsibilities as an actor in the GDG framework when each side requires a different understanding of what sovereignty and responsibility entail.

3.9 Conclusion

This chapter started with a review of the use of sovereignty in key academic global health literature. This highlighted that the use of term slightly varied in different instances, or was used for a different purpose and that there was no consideration of what sovereignty actually entailed. The chapter developed the use of the term sovereignty in global disease policy documents. It showed that the WHO, and the wider GDG agenda, has been driven to link the concept of sovereignty to that of responsibility. It began by exploring the traditional meanings of sovereignty, those of absolute authority within a territory, the principle of non-intervention, equality amongst sovereigns and the indivisibility of sovereignty. It explored how such an understanding does not adequately account for sovereignty in the GDG landscape, and thus such an approach would not provide a suitable framework for analysing the tension between states and such a multi-stakeholder framework. The chapter developed to explore revisions of sovereignty as have been constructed in the dichotomies of internal/external (Lake), de Jure/de facto (Ghani et al) and domestic/Westphalian/interdependence/legal (Krasner). Although these divisions do give more nuance to the concept of sovereignty, they were not in themselves able to offer a satisfactory understanding of the endurance of sovereignty in GDG, due to the breaches of 'Westphalian' sovereignty of non-intervention and the range of actors involved in disease control. As such, this chapter reached the conclusion at the mid-point that the concept of sovereignty is, in fact, contingent upon the context in which it is used and has different meanings at different times and situations. Accordingly this thesis suggested a constructivist understanding of sovereignty for explaining the role of states in the GDG framework.

The second half of this chapter picked up the notion of responsibility. Starting with exploring the concept of sovereignty as responsibility, as heralded by WHO, it unpacked this to see how these ideas are inextricably linked. Whilst it has been a clear rhetoric of the GDG agenda for effective disease control, sovereignty as responsibility did not offer a full consideration of the domestic responsibilities which might be inherent to a sovereign state (as well as its global ones). As such, sovereignty as responsibility has failed to offer a suitable explanation for state activity in GDG in all instances, and only represents the best public health approach to a disease threat. By picking up on the issue of responsibility, this chapter ended by analysing and unpacking the concept in greater detail. Just as sovereignty has

proven to be more complex than on the face of it, so too is responsibility. Similar to the constructivist reading of sovereignty, this section suggested that responsibility is inherently social and relational, and its meaning is contingent upon the context in which it appears. States are caught between their responsibilities to the global community to ensure global health security, and their domestic responsibilities to their populations and the economic community.

In this chapter, the concepts of sovereignty and responsibility have brought into question assumptions which have been taken for granted to date in GDG literature and state response to disease. When assessing how sovereignty and responsibility may challenge multi-stakeholder governance arrangements for improving health security and vice versa, sovereignty has been heralded as an analytical given. This chapter has highlighted that sovereignty is a far more complex issue than often is stated. Through analysis of a range of understandings of sovereignty, it becomes increasingly apparent that the meaning of sovereignty is intrinsically linked to the context in which it appears and does not exist independently to those who use it. The reason it is often taken as analytical given, in part reflects the fact that the term sovereignty has been used in different ways and in different times and it would be too complex to define it at each juncture. Furthermore, it has been a convenient construct used by states and academics at different points to justify inactivity or challenging GDG. Instead of heralding the start of a post-Westphalian era in global health, where multiple actors usurp the sovereign duties to improve public health provision, the key task of this thesis is to produce a more nuanced account of the meaning of sovereignty. It seeks to show that the term needs to be unbundled and analysed in relation to the context in which it appears.

At times governments adhere to conventional norms associated with (traditional) sovereignty because it provides them with resources and support. However, at other times they have violated these norms for the very same reasons (Krasner 1999:24). This is similar to conceptions of collective responsibility for global disease control. Whilst governments speak of norms of GDG and promote global responsibility to ensure rigid global surveillance and response facilities to pick up an outbreak occurring, they do not necessarily abide by this sense of collective responsibility when it comes to reporting. There may be instances where a government feels tension between the responsibility it has to the international

community to promptly report an outbreak, and the responsibility it has to its trade or tourism industry to ensure that activity and profits do not slump. As such, it may prioritise these responsibilities as it sees fit and delay communication with the wider world. Similarly, a state may feel more responsibility towards its own citizens and their healthcare than it does towards the global community's need to be aware of an outbreak. Furthermore, resources may be diverted to non-communicable disease, for instance, or those which reflect the greatest burden of disease, rather than investment being put in place to meet the IHR (2005) core competencies.

This chapter has shown that just as sovereignty takes on a different meaning dependent on the context, so too can responsibility. Responsibility involves a bundle of ideas, some of which may prove more important at certain times than others. Responsibility, like sovereignty, is a much more complex term than it often inferred. It is deeply relational and context specific. Through analysis of domestic and global disease control efforts in three case studies (UK, Thailand and Lao PDR) this thesis will provide context for expressions of sovereignty and responsibility to operate. It shall analyse how these two concepts manifest themselves in infectious disease policy. The following chapters seek to answer the central research question of assessing the extent to which *state* conceptions of surveillance and sovereignty challenge the framework of GDG, by showing how domestic sovereign responsibilities play a vital role in a state's attitude towards infectious disease and the GDG agenda. This is not to say that their understanding of sovereignty and responsibility is congruent or mutually exclusive in all three cases, but each state's interpretation of what these concepts meant to them will highlight the context specific nature of sovereignty and responsibility. Sovereignty only takes meaning through the understandings and use of the word and the chapters will show that tensions exist between each state's understanding of sovereignty, and that promoted by the GDG framework.

These two conceptual chapters have highlighted the key themes and tensions within GDG and sovereignty that will then be picked up on through the following empirical case studies. This included showing how a state can appear compliant with GDG, through internalisation of the norms of GDG, and meeting the requirements of the IHR (2005). For sovereignty, the divisibility of the concept has become apparent, along with understanding that sovereignty is not exogenous to the system, but it is produced through mutual understanding between

actors of its meaning. The first of the case studies is the UK, the chapter that follows assesses the UK's interpretation of sovereignty in the context of GDG in an effort to analyse whether tensions have arisen for its understanding of sovereignty in the wake of the increasing rhetoric of sovereignty as responsibility and the ideals of GDG.

Chapter Four The United Kingdom: Sovereignty as Self-Interest³⁰

4.1 Introduction

Global health and global disease control have increasingly featured on foreign policy and national security agendas of several Western states. Although by its very nature, there is no leader in GDG (Youde 2012: 5), the normative discourse and legislation of GDG has come from Western states, fearing the threats posed by emerging infectious disease within their borders. The UK has been keen to instigate a change to global disease control, so as to ensure (global) health security. Interestingly, there has been little analysis of the individual role of Western states in the GDG matrix, as they routinely appear clumped together as pursuing similar goals for mutual health security. This chapter seeks to analyse the UK individually to show the disease control practices that the state favours. Unlike Thailand or Lao PDR, the UK cannot be considered a high risk area for infectious disease as it does not possess the risk factors of Southeast Asia (p.158). Yet, the UK considers infectious disease a serious threat, placing outbreaks a high priority on the UK Risk Register (UK Cabinet Office 2015: 14). This chapter seeks to contribute an analysis of the role that the UK performs in the GDG framework, ultimately showing that the UK's sovereign understanding in GDG is as much driven by self-interest as it is by contributing to global health as a public good.

This chapter will offer an analysis of UK disease surveillance and response mechanisms domestically and at the global level. Through this analysis, this chapter will understand how the UK exhibits sovereignty and sovereign responsibility in relation to the GDG framework. Similarly to Thailand and Lao PDR, the UK champions the normative and legislative requirements of GDG to both encourage other states to act responsibly, but also to appear as a responsible global leader for health. However, the UK is not always compliant with the

³⁰ Interviews for this chapter were conducted during the winter of 2012-2013. At this time, the main public health body in the UK was the Health Protection Agency (HPA). In April 2013, the HPA was disbanded and Public Health England (PHE) was established. Broadly, PHE does what HPA used to do (protection from threats to health such as infectious diseases and chemical, radiation and environmental hazards) plus national leadership on health improvement and achieving sustainable health and care services. Furthermore, PHE pulled in a broad range of other organizations and staff for its health improvement work as well as the HPA's health protection staff. Meanwhile, NHS public health staff transferred into local authorities and PHE gained a role in supporting them in their local work. PHE retained the same function in infectious disease control as that of HPA, so for the most part the UK position has not changed. The interviews have not been repeated, and so these findings may have organisational change inaccuracies in them. The updated PHE policies have been consulted in the revisions to this chapter, and where possible the functions have been verified that they are still current. Any misrepresentations are the fault of the author entirely.

received understandings of GDG, and will choose to prioritise its domestic responsibilities, notably their global strategic interests, when necessary. Accordingly, this chapter contributes to the narrative that this thesis pursues, highlighting that sovereignty is a malleable concept and that individual states will exhibit a range of sovereignty illustrations against the globalized norms of GDG. Furthermore, a disjuncture will be shown between the internal and external faces of sovereignty (Lake 2003). Internally the UK is protective of its sovereignty, focusing considerable efforts on protecting its population and economy from the threat posed by disease. Externally, the UK exhibits responsible sovereignty and has internalised the norms and legislation of the IHR (2005). However, this has not been done wholesale, but when it aligns with broader UK interests. Although the UK was one of the entrepreneurs of GDG, this is not to say that they always act according to the prescribed norms. This includes their failure to rapidly report outbreaks in all instances and their unwillingness to place GDG over that of state sovereignty (p.72). However, simultaneously the UK promotes GDG elsewhere in the globe, and in doing so is ensuring its own health security through increased awareness of outbreaks. Moreover, through the rhetoric of GDG, the UK promotes its own position, strengthening its external sovereignty as a leader in global health and can further its strategic interests globally.

This chapter starts by offering a background to health policy and disease control approaches in the UK. It highlights the unique elements of UK health provision through the National Health Service (NHS) which facilitates effective disease surveillance and response centrally. The challenges of devolution are discussed to show how this affects the UK's understanding of sovereignty for disease control. This initial introduction will also consider the role of the UK as a leader in GDG, notably through their trailblazing publication of *'Health is Global'*. This strategy indicates the UK's sovereign priorities for disease control, those of ensuring health security, reducing health inequalities and ensuring a greater access for UK trade in health markets. These themes will be evident in a number of the UK's activities in GDG. Health security and the economic aspects of disease control are shown through a brief discussion of key outbreaks which helped to frame the UK's disease control those of BSE/vCJD, Foot and Mouth Disease and EVD. These outbreaks highlight the strength of the UK's internal sovereignty and the importance placed on public perception of a potential threat.

Following on, this chapter examines the domestic infrastructure within the UK for disease control. It shows the range of approaches that the UK undertakes for surveillance of infectious disease from routine GP reporting to range of syndromic surveillance protocols and more innovative forms of monitoring transmission and prevalence of infectious diseases within the UK. This considers the UK's engagement with digital disease surveillance and other informal sources of sharing disease pertinent data globally, as championed by the norms of GDG and the IHR (2005). Following Lake (2003) (p.88) the UK has a clear understanding of its internal sovereignty and responsibilities for protecting their population and their economy from the threat of disease. The outbreak of MERS-CoV exemplifies how the UK reacts to the requirements placed on it by GDG agenda, that of prioritising its own internal sovereign responsibilities of self-interest and strategic relationships over the normative goals of GDG.

Unlike Lao PDR, who relinquishes part of its internal sovereignty to other actors to carry out disease control within their borders (p.234), the UK does not welcome other actors into its domestic health infrastructure. This could suggest that the UK exhibits a traditional understanding of internal sovereignty. As shown in Chapter 2, internalising GDG requires states to both embody the normative shift that has occurred in the understanding of global health in the past decade, and to meet the core competencies of the IHR (2005). This chapter shows how the UK has met the IHR (2005) and internalised the norms of GDG making the UK a 'responsible state' externally in the eyes of the wider global health community through efforts to ensure global health security and collaborations with a range of actors in bilateral and multilateral arrangements for disease control.

The second half of this chapter examines the UK's external activity in disease control in more detail. Through analysis of policy documents such as the *Global Health Strategy 2014-2019* and *Health is Global* and the UK's role in GOARN and the EVD response, the section shows that the UK's involvement in global disease control is linked to self-interest for increased health security for the UK population and economic and trade stability. This highlights their preponderance for strong internal sovereignty. A second motivation for the UK's role in global disease control is in an effort to appear as an externally responsible state in the GDG framework, and also encourage its leadership role in this matrix.

The final section brings together the key themes that have emerged through the analysis. The first of these examines the importance the UK places on global health security and national health security, to the extent that these two concepts become synonymous. The UK contributes to a range of surveillance sources and is involved in a range of disease pertinent activities. Although this may appear to be internalizing the norms of GDG, this chapter suggests that UK engages in these activities not only to exhibit external sovereignty as a responsible state, but also to glean further information about circulating pathogens to better protect themselves against disease. A second theme that becomes apparent is tension in the rhetoric of global public goods. The UK presents their external work in global disease control as done in an effort to provide a global public good to GDG, as a responsible sovereign. However, through closer examination, GDG is not strictly a global public good, but rather a Western public good (p.147). This highlights that the UK's work in global disease control furthers its own self-interest, although using rhetoric of global public goods, to encourage other states to contribute in a similar manner. The final theme considers the UK's interpretation of sovereignty. It is through this section that the nuances of the Lake's internal and external sovereignty are seen and helps to answer the central research question. The UK is fiercely protective of its internal sovereignty, not allowing other actors into its territory for disease control. Its focus on protection for its citizens and for its economy throughout the chapter highlights this strong internal sovereignty. Externally, the UK shows an understanding that sovereignty also entails a responsibility to the wider global population. It has internalised the norms of GDG and takes strides to ensure global health security. However whilst its actions do help foster the ideals of GDG, the actions also are self-interested in strengthening the UK's own security and strategic position. Moreover, as the UK has not internalised the fourth norm of GDG (p.72), sovereignty remains supreme to GDG. This furthers the argument of this thesis that states remain the central actor in global disease control.

4.2 Background to the UK

Before analysing how sovereignty may challenge the ideals of GDG, it is important to contextualize disease control policy within the UK to better understand its position and actions. The UK is considered a high income state (World Bank 2015) and therefore

represents a different income level to Thailand and Lao PDR allowing for pertinent comparison across income thresholds.

The NHS offers universal free healthcare at the point of access (Interview, Epidemiologist, HPA, 17th January 2013) making the UK a unique health system for analysis of disease control. On the most fundamental basis, the provision of free healthcare means that patients affected with any infectious disease will be more likely to visit a health professional than if these services were charged (Thomson, Foubiser and Mossialos 2010). Accordingly, if an infectious pathogen emerges in the UK, it is likely that it will be detected rapidly. Furthermore, the NHS centralized system allows data to be transferred between individual GP surgeries, hospitals and the state structures rapidly³¹. As the NHS is provided by the state, aside from individual data protected by the Data Protection Act (1998), UK public health officials can access all information relating to healthcare and disease statistics across the UK, enabling it to have effective surveillance infrastructure to detect disease easily. A functioning health system also allows for rapid response and monitoring of those affected, as well as effective infection control limiting any outbreak's spread. The presence and continued funding to the NHS is the first evidence of the strength of the UK's internal sovereignty, as the UK provides health security to its citizens through NHS services which would be able to limit the impact of an outbreak.

Key to understanding the UK and its role in the GDG mosaic is that UK considers itself to be a global power in health and this role represents the first manifestation of the UK's external sovereignty (Hassan et al 2015: 2). The UK is well respected for its public health system, public health leadership, public health delivery, research training and public health research capability (PHE 2014: 16). The UK has also been widely admired as a pioneer of global health security, and its work in disease surveillance and response has been widely used a template for implementation in other states, both as an example of best practice and through direct training by UK public health specialists (interview, Senior Official , HPA, 14th January 2013, Interview, Senior Official, HPA, 24th September 2012). Through the active foresight of Chief Medical Officer Liam Donaldson (1998-2010) and Prime Minister Tony Blair (1997-2007)

³¹ This is in spite of failed initiatives such as care.data, which sought to pool all medical data at a national level in order to monitor trends in health conditions in order to develop new treatments and monitor the effectiveness of current performance.

disease control was placed firmly on the agenda for action, due to the risk of bioterrorism, and more broadly for improving public health infrastructure. The UK views this as archetypal of its active agency and leadership in the global health security project (Interview, Public Health Strategy Lead, HPA, 29th January 2013). The UK demonstrated this leadership through raising the importance of global health issues at global fora, notably at the G7/8, WHO and EU, and often these concern the area of disease control (Hassan et al 2015: 25). Furthermore, the UK is the second largest donor government in the world, (after the USA) and health is their largest area of activity. Through DFID the UK support health system strengthening and targeted health interventions through bilateral and multilateral frameworks (Hassan et al 2015, PHE 2014). This begins to create the narrative that the UK understands as a responsible sovereign, it must seek to protect populations globally from health concerns.

However, assessing disease control in the UK it is not without difficulties due to the devolution of certain responsibilities to Holyrood, the Welsh Assembly and Stormont. One of the key areas of devolved responsibility was that of healthcare (HM Government 1998b, HM Government 1998c, HM Government 1998d), and real policy differences in this area have begun to emerge, such as free personal care in Scotland and free medical prescriptions in Wales (Jervis 2008:7). Disease control has also been devolved to PHE, Public Health Wales, Health Protection Scotland and the Public Health Agency, Northern Ireland. However, the UK government does not work on the basis of watertight divisions there is a high degree of functional dependence between devolved nations (Keating 2002: 4).

One such dependence is at the international level. The Department of Health (England) acts as the 'federal' health ministry for the whole UK and is responsible for intergovernmental relations in health, such as membership of the WHO (Jervis 2008: 12). This means that under the IHR (2005) the responsibility to uphold the legislation (and report outbreaks of disease) sits with the Department of Health (England), who have designated PHE as the NFP (Interview, Epidemiologist, HPA, 17th January 2013). This resonates with other areas of international relations, as national security matters and reciprocal health agreements were reserved by Whitehall (Keating 2002:6). The Department of Health (England) is also responsible for UK Overseas Territories and Crown Dependencies. However, whilst global communication for disease control sits in London, this is not to say that informal disease

surveillance channels do not exist between the devolved administrations and other organisations or individuals abroad. Interestingly, there is no legal obligation for the devolved administrations to share disease pertinent information received with each other, although in practice this is what happens (Interview, Public Health Strategy Lead, HPA, 29th January 2013). This voluntary sharing of information between the devolved public health administrations insinuates that public health professionals understand the normative shift towards effective disease governance, and prioritise sharing of disease pertinent information within the UK, and do so despite tensions with their devolved nation sovereignty³².

However, as suggested by Jervis (2008: 90) it is sometimes difficult to determine in ministerial speeches and Department of Health publications whether the issues being discussed related to England or the UK, a confusion that some UK ministers have seemed keen to encourage (Jervis 2008:90). An example of this could be the *Health is Global* strategy which is an English cross governmental publication, and yet refers to its actions as that of the UK. Smith and Babington (2006) note that there are unresolved tensions in the UK government operating on an English only basis, when there is a requirement to perform UK wide functions and maintain quasi-federal responsibility³³. However, the Jervis (2003) noted that the Department of Health (England) in its broader UK role has worked to involve the devolved administrations in international affairs. For example, in the case of Foot-and-mouth disease, although the devolved administrations had an option to take a separate line, they opted for a combined response with Westminster, seeing a common UK position as the best way of maintaining effective disease control, and allowing for a greater influence globally (Keating 2002:11). This theme of global influence and external sovereignty remains constant in this chapter, with the UK wishing to use the framework of GDG to further its own strategic sovereign interests and continue in its position as a leader for global health.

As an example of the leadership that the UK has shown in global disease control, the UK was the first state to publish a cross-government strategy for global health, entitled *Health is*

³² For the purposes of analysis, when this thesis refers to the Department of Health (England) or to the UK policy, it shall refer to the policy of the United Kingdom including the work of the devolved administrations.

³³ Any analysis that this chapter suggests about the tensions between GDG and sovereignty may be struck by this inherent problem about the level responsibility and level of governmental involvement between devolved nations sovereignty too.

Global 2008 -2010 followed by *Health is Global 2011 – 2015*. This strategy reflects the key policy position of the UK to:

‘Protect the health of the population, harness the benefits of globalization and make the most of [the UK’s] contribution to health and development across the world... and in doing so to assure the UK’s security and prosperity at home’ (HM Government 2011: 2).

The three areas for action in this document can be taken as the key priorities for the UK in GDG, offering considerable insight into the UK’s approach to global health and succinctly outlining the tension between GDG and sovereign interests. The first of these *‘is to promote global health security to combat threats that transcend international boundaries such as emerging epidemic and pandemic infections’* (HM Government 2011: 5). The policy suggests that the UK seeks to develop the potential to better predict, avoid and respond to global health threats both within the UK and elsewhere in the globe. This area for action corresponds with two of the norms of GDG, those of ensuring global health security, and collective action to improve methods for improved surveillance and response, by assisting other states in improving their disease control capabilities. This activity also emulates the legislative requirements of the IHR (2005), in that the UK seeks to develop means to both meet its own core competencies under the IHR framework, but also to support other states in meeting theirs.

The second area of action in *Health is Global* is to reduce inequalities in health provision through health system strengthening (beyond that of infectious disease control). Although such an area of work does not correspond with the ideals of GDG, improving health systems globally will improve public health infrastructure in developing states, which should directly impact on the ability of these states to detect, report and respond to emerging health threats. These two areas of action in a formative global health policy document indicate that the UK understands that sovereignty and desire to be a leading figure in global health entails a responsibility to help others with their efforts in surveillance, response and broader health development. As such, this already helps to answer the research question to show that sovereignty has not been challenged by GDG, but that sovereignty has been re-understood to comprise key components of GDG within in.

The final area of action under the *Health is Global* framework is to *enhance the UK's role as a market leader in wellbeing, health sciences and medical products*. This is framed as *'trade for better health'*. This activity succinctly highlights internal sovereignty and domestic priorities for the UK in its work in global health. *'The UK wants to ensure that all of their work in global health not only brings significant benefits to the UK economy... but also improves multilateral capacity for health security'* (HM Government 2011: 9). The UK wishes to use the rhetoric of global health, and will embody the norms and legislation of GDG, so as to appear as a responsible sovereign externally, encouraging other states to act similarly. However, it does this out of self-interested desire to strengthen its own economy, security and position in global affairs as well as to strengthen GDG. Through this brief synopsis of the UK's position towards disease control it is already apparent that there is a dichotomy between the UK's external and internal understanding of sovereignty which will be explored further (p.88). The following section will examine two key pathogens which have afflicted the UK population, and which have helped to shape the UK understanding of disease control and policies accordingly.

4.3 Outbreaks

Whilst the UK has not been constructed as part of the contagion narrative like Southeast Asia or thought of as a cradle of disease (Wald: 2006). That is not to say that it has not been affected by infectious disease. A recent report by the All Party Parliamentary Group for Global Health cited suggestions for events that have influenced the UK's global health agenda in the last 20 years. These include the 1995 sarin gas attack in the Tokyo subway, the SARS and Swine flu (H1N1) pandemics in 2003 and 2009, and the 2014/5 EVD outbreak in West Africa. Hassan et al (2015: 39) suggest that as a consequence of these outbreaks, the focus on global health security has emerged as one of the most important issues in health, requiring a cross-governmental response within the UK and beyond with states working together to protect the health of global populations.

The Bovine Spongiform Encephalopathy /variant Creutzfeldt-Jakob Disease (BSE/vCJD) episode in the 1980s and 1990s could be viewed as the first health crisis the UK faced in the era of globalization, and refined its understanding of disease and sovereignty. It was recognised in 1996 that the consumption of beef infected with the agent of BSE, a disease of

cattle, was linked to the occurrence of vCJD. Between 1996 -2011, there were 175 cases of vCJD reported, all of whom were thought to have contracted the disease through consumption of beef in the UK (WHO 2012). This outbreak had a considerable effect on the beef industry in the UK. Domestic markets were struck by fear surrounding beef products. Similarly, international markets dried up, with a 10 year ban on beef imports established by the EU. It is estimated that the total economic impact of this crisis, including the slaughter of 3 million cattle, was an estimated financial loss of £11billion (Beck et al: 2007). The UK government was accused of considerable mismanagement of the outbreak, with the widely held belief that the government had misinformed the public about the dangers of BSE, as well as concerns about the undue influence of certain actors (such as the agricultural sector)(Beck et al 2007). In an effort to understand the failings of the government, the Blair government (1997-2007) launched the BSE inquiry, but whilst this criticised the structures for coordination of infectious disease response at governmental level, it offered no conclusions for how to improve response to threats to health security (HM Government 2000). As a consequence of the mismanagement of the BSE crisis, the UK government have taken a much broader approach to infectious disease control, widening policies (such as *Health is Global*) to a cross governmental level as they understand that outbreaks of disease can have a far wider impact than just the pathogen itself.

Similar agricultural outbreaks were the sequential Foot-and-mouth Disease in 2001 and 2007. In 2001, the government misunderstood the transmission of the pathogen and how disastrous this outbreak could be. This led to a delay in implementing a transport ban of animals, allowing the virus to spread considerably before an effective response was launched. By the time the Government had got to grips with the outbreak, it had become a civil emergency rather than an animal incident, even requiring the deployment of military personnel (The Guardian 2007). By the end of the epidemic, more than 4 million animals had been slaughtered (Brown 2002) costing the UK taxpayer over £3bn (National Audit Office 2002). In the interim, the government worked to develop contingency plans for outbreaks, so that they are well prepared to combat any emerging disease threat. Accordingly when Foot-and-mouth emerged again in 2007, the Brown Government (2007-2010), learning the lessons from 2001, implemented an immediate livestock travel ban. The outbreak was thought to be caused by a biosecurity leak from a laboratory, which posed

new concerns for health security within the UK (HM Government 2008b: 10). A second concern for policymakers was that whilst Foot-and-mouth does not impact human health, it can have a considerable impact on livelihoods, the understanding of which helped governments to frame disease as much as an economic concern to the government as it is a health concern, a key component of the UK's internal sovereign understanding of health.

These Foot-and-mouth outbreaks were important politically, the 2001 outbreak particularly so, as the outbreak led to the delay of the 2001 General Election. This was delayed in an effort to take into account the '*feelings and sensitivities*' of people in affected areas and that the delay was in the national interest (Blair 2001). This was criticized by the opposition as '*Another chapter in the catalogue of dithering and delay which has characterized the government's handling of foot and mouth*' (Widdecombe 2001). These outbreaks offer an insight into the UK's development of a sovereign understanding of responsibility when it comes to disease. Neither Foot-and-mouth or BSE had potential for global impact due to the nature of transmission, and nor did they affect humans directly, yet it became clear from these crises that the UK's priority when responding the threat of disease is to protect UK industry and important interest groups from any potential financial repercussion. In these instances, action was taken to protect the agricultural industry, export markets, and the UK tourism industry too. These examples provide evidence of this trend which will continue through this thesis, analysing the tension between UK activity and GDG, as the state understands its sovereign responsibility as a balancing act between its internal sovereign responsibility for economic security and that of its external sovereign responsibility to maintain international credibility as being able to manage an outbreak on its own and a continued food supply. Where possible the UK champions the external ideals of GDG, however, when there is a tension between these two goals, the UK tends to favour their internal economic priorities over global level responsibilities.

Interestingly, these outbreaks have also shaped the public understanding of disease in the UK. Public understanding remains one of the key challenges to the UK government as it tries to limit the spread of infectious disease. The threat posed to the UK by infectious disease may not be the pathogen itself, but the narrative that surrounds the disease which can be more damaging to the state and economic infrastructure (Interview, Senior Official , HPA, 14th January 2013, Interview, IHR Coordinator, HPA, 24th September 2012). The availability

of information to fuel anxiety amongst the public is aided by the rapid spread of information available online (Interview, HIV/AIDS Lead, HPA, 24th September 2012). Today in the UK 86% of adults (44.7 million) are regular Internet users (ONS 2015). This means that the same numerous sources to provide vital disease pertinent data to digital disease surveillance providers (p.51) are able to provide to spur fear amongst the general public too. PHE recognize that, over the last twenty years, the role of the media has become just as important as the public health response to an outbreak, ensuring that public anxiety does not lead to unforeseen social or economic consequences, (Interview, IHR Coordinator, HPA, 24th September 2012; Interview, Epidemiologist, HPA, 17th January 2013). Responsible media outlets can be incredibly useful in infection control; in an outbreak it is essential to have contact with the public to spread the messages of containment. However a misreporting of an outbreak can have disastrous economic consequences, with a disruption to travel at the local, national and international level (Interview, Senior Official, HPA, 14th January 2013). In these instances when media coverage of the outbreak is causing concern within a state, a government has to be seen to be acting to limit disease transmission, even if the actual pathogenic risk is not severe, in order to allay public fears and assert their internal sovereignty (Interview, IHR, HPA, 24th September 2012).

This was seen in the EVD outbreak (2014-5). As public perception of the outbreak grew in the UK, so did the fear of the disease, and pressure mounted on the UK to act to pacify the public disquiet. Although the nature of the EVD pathogen and the strength of the infection control in the UK means that EVD would never pose a serious threat to the UK population (Ball 2014), the Government understood that it needed to demonstrate that it was able to combat the threat to allay public fears and in doing so re-assert its internal sovereignty and its ability to protect the population from the threat of disease. This surmounted to implementing heat screening at airports in an effort to stop those infected with the virus from reaching UK communities. Yet these control measures only give a false sense of reassurance against the threat of disease as they have been shown to have no meaningful effect on the risk of importing EVD (or similar diseases) into the UK, (Bogoch et al 2014, John et al (2005) Mabey et al 2014). The UK invested in control measures that had no public health benefit but as a political placebo to reassure the population and that it was taking

measures to limit the threat of EVD³⁴. Based on the empirical examples of recent outbreaks that this section has shown, the next section will analyse UK domestic surveillance infrastructure to highlight its internal sovereign structures to maintain responsibility to protect the health of their population.

4.4 UK Domestic Surveillance

This section outlines the key infrastructure in place in the UK to combat disease, such as those described in the previous section. To answer the main thesis question and understand how GDG may affect sovereignty, it is important to lay out what position states are in domestically to manage outbreaks of disease, to understand whether their domestic activity accompanies the received understandings of GDG, or whether the UK has had to substantially change its surveillance practices to internalise the norms therein and show its sovereign understandings through such activity. Effective surveillance is seen as key to any infectious disease strategy amongst Western governments, and the UK is no exception (Fidler 1997). In previous decades, the focus of infectious disease surveillance fell under the Public Health Act 1875, which required the reporting of a case to health authorities, and also enabled rudimentary screening at points of entry into UK territories. This legal provision was subsequently updated in 1989, enabling any urban, rural or port sanitary district to make certain infectious diseases notifiable (McCormick 1993: 19). These notifiable diseases became statutory requirements with the Public Health Act 1984 (HM Government 1984) and the Public Health Infectious Disease Regulations (HM Government 1988). All industrialized countries introduced similar policies of notifiable diseases (Collin & Lee 2003: 22). However, owing to the scale and speed of population mobility of 21st century (Collin & Lee 2003: 48), with ever increasing air travel and the opening of the Channel Tunnel in 1994, the UK realised that these methods of surveillance were ill suited to be the only operational activity against potential health threats. Accordingly, the UK realised that it needed to take a global, rather than statist approach to disease control (Davies 2010: 14-26). Such understanding allowed the UK to become a pioneer of GDG. In doing so, the UK showed

³⁴ In actual fact, if the UK had really wanted to combat the threat of EVD reaching the UK in a more meaningful way, they should have used the money spent on the airport screening mechanisms to fund emergency response in West Africa (NHS 2015b).

that its sovereignty needed to be redefined and expanded to meet the changing global landscape.

UK Government action was initially exhibited in *Getting Ahead of the Curve: A strategy for combating infectious disease* (Department of Health 2002) in which the Chief Medical Officer, Liam Donaldson detailed the implications of infectious disease in the UK and proposed the best method for managing it through the creation of a unified body responsible for such matters. This led to the creation of the HPA (in England), Health Protection Scotland and the Public Health Agency for Northern Ireland, under the Health Protection Act (2004) with the mandate '*[to] protect the public from threats to their health from infectious diseases and environmental hazards*' (HM Government 2004). This was essentially replaced by the Health and Social Care Act (2012), which moved health protection responsibilities to the Secretary of State to be discharged by a new body, PHE (the Scottish and Northern Irish public health protection bodies remained the same). Although there were fundamental changes to public health provision under this Act, in terms of infectious disease control, PHE has simply taken over the role HPA and remains the key governmental department for infectious disease. PHE is responsible for making sure that England can respond to health incidents. Through this they recognize that they '*must establish and implement effective outbreak control arrangement for any infectious disease threat that arises*' (PHE 2014).

Accordingly, the UK's designated body for coordinating national disease surveillance and response activities is PHE, gathering data on infectious disease in a variety of ways. Clinical surveillance data is ascertained through primary care channels, such as sentinel surveillance by general practitioners (GPs). Diagnosis by a GP will be recorded by PHE. Samples are sent for virological analysis by (PHE) laboratories and also feed into national disease statistics. This data is then combined with hospital admissions and mortality data from the Office of National Statistics (PHE 2014). Traditionally surveillance in the UK has been managed through a bottom up approach, by which frontline clinicians and health practitioners report cases up the chain through their medical director, local public health board, regional public health board up to the national level, that of the state epidemiologist (Interview, Clinical Lead, International Severe Acute Respiratory and Emerging Infections Consortium, 5th December 2012). There are 32 diseases that are notifiable in the UK. Although such disease

surveillance is the main method of data acquisition at the national level in all three case studies, this process relies unduly on health workers in the first instance, and there are several layers where messages can get delayed, confused or rejected.

In an effort to combat the issues with a bottom up approach, the UK has implemented top down surveillance simultaneously, to act as an early warning system for their traditional surveillance methods. One such method is the introduction of syndromic surveillance. Syndromic surveillance is the real time collection, analysis, interpretation and dissemination of health related data from reported symptoms to enable to early identification and impact of potential public health threats, which require public health action (PHE 2015b). Notably such systems only offer an indication of a particular pathogen, as they do not include virological confirmation, but simply a forum for reporting symptoms. Syndromic surveillance comes from remote health advice systems, such as NHS 111, the UK's non-emergency phone service for medical advice, GP in hours routine visits, GP out of hours reports, Accident and Emergency department reporting and the weekly reports from the Royal College of General Practitioners (RCGP) which collates and analyses data from all GP practices in the UK (PHE 2015b). Such disease surveillance practice can help to provide early warning of the appearance of seasonal illnesses such as ILI and food borne outbreaks such as gastro-intestinal complaints. Furthermore, syndromic surveillance provides real-time situational awareness during a known outbreak and provides reassurance for health professionals (Elliot 2014). As such, syndromic surveillance is an innovative way of collecting and analysing health data and is becoming increasingly popular way of monitoring public health globally (Elliot 2014).

Of particular interest is the UK's investment in the NHS 111 system³⁵. This simultaneously offers health advice to citizens, but moreover monitors all data collected relating to affliction and geographical location. This data contributes to a weekly report to alert the state to any clusters of outbreaks (NHS 2015). This is then mapped simultaneously to data collected in hospitals, to offer verification to the symptomatic telephone calls (Interview, Senior Official, HPA, 14th January 2013; HPA 2013). This innovation has led to the UK being heralded as a best practice example of how to manage surveillance effectively (Interview, Senior Official, HPA, 24th September 2012), by engaging with all technology available. Such

³⁵ This was previously known as NHS direct (NHS 2015)

data are placed into wider risk assessments to analyse the outbreak, to see whether the need for action outweighs the economic impact of imposing any restrictions on travel or trade to individuals or groups (Interview, Senior Official, HPA, 24th September 2012). Interestingly, two key public health practitioners at PHE noted the tensions at play between the public health response and the impact that any action may have on travel and trade (Interview, Senior Official, HPA, 14th January 2013; Interview, Senior Official, HPA, 24th September 2012). This suggests that the tensions being examined in this thesis, the challenge between the norms and legislation of GDG and the sovereignty are considered at all levels of government. Such considerations are at play throughout the disease control process, as epidemiologists must decide whether an outbreak has potential enough to warrant superseding sovereign interests. However, the mere fact that the UK has invested in such a variety of disease surveillance protocols suggests that the UK considers its internal sovereignty as important, and it places considerable focus on protecting its population and economy from outbreaks through a variety of mechanisms.

The diagram below offers a detailed understanding of all surveillance sources in the UK.

Sources of surveillance data to Cfl

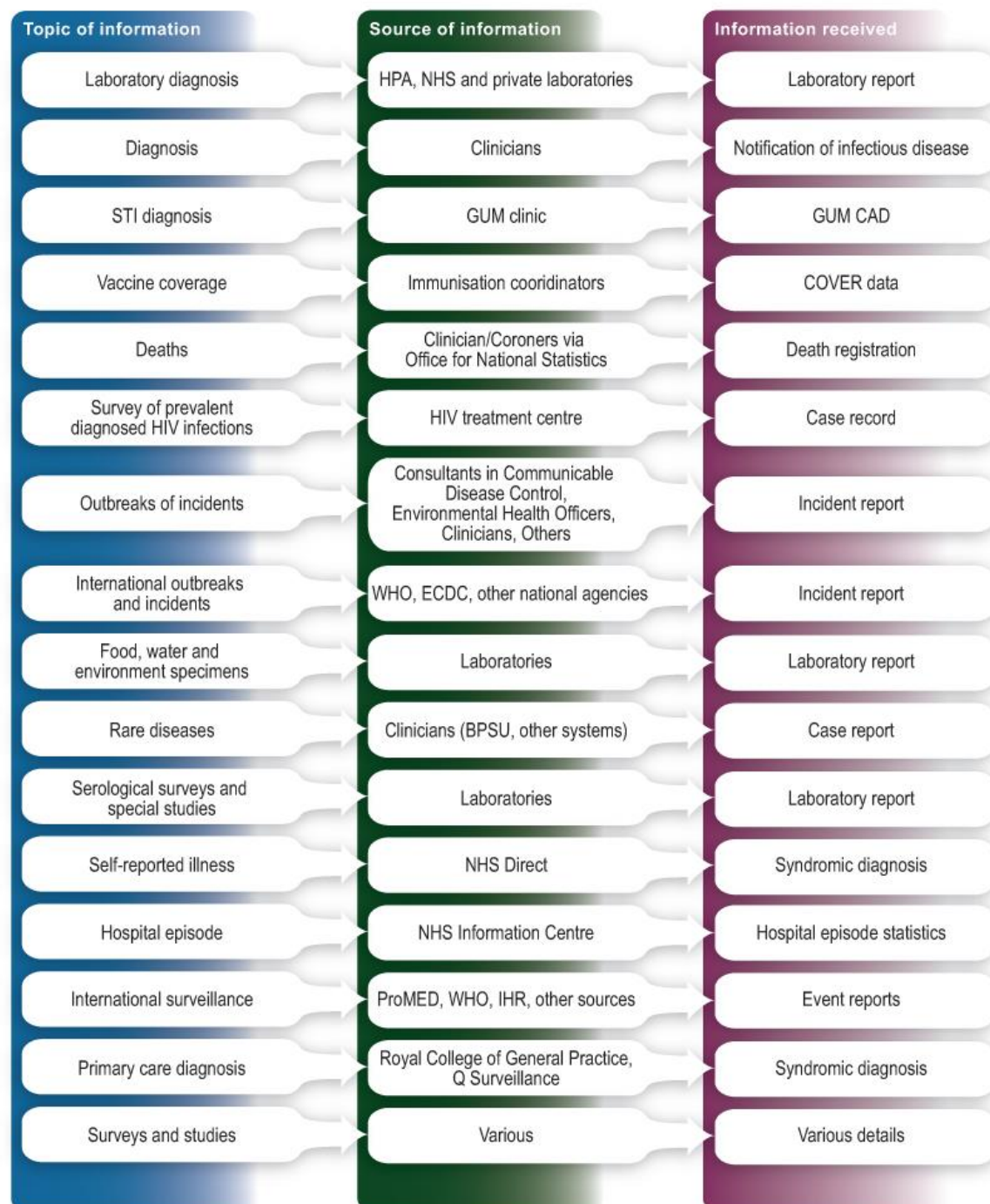


Figure provided during Interview with Epidemiologist, Health Protection Agency, 24th September 2014

4.4.1 Digital Disease Surveillance

Like Lao PDR and Thailand, the UK has incorporated digital disease surveillance into its domestic surveillance practices. In fact, the use of such technology was also considered of importance during the development of the *Health is Global* strategy,

“Developments in ... communication technologies have considerable potential as a means for health improvement. Rapid sharing of information improves the public health response to natural and man-made disasters. Rapid sharing of data allows for quicker recognition of outbreaks and prompt action” (Donaldson 2007: 34-38)

PHE has a team dedicated to scanning such digital sources of disease pertinent data on a daily basis. This includes ProMED-Mail, HealthMap, Biocaster, Flutrackers, and Center for Infectious Disease Research and Policy (CIDRAP), not to mention information provided by interstate sources, such as WHO GOARN reporting mechanisms, data sharing at ECDC level through the Medical Information System (MEDISYS), and the United States-Center for Disease Control and Prevention (US-CDC). Such monitoring detects emerging infections which might affect the UK in the short term, as well as analysing longer-term trends that might pose an on-going concern (Interview, IHR Coordinator, HPA, 24th September 2012). The preferred provider of digital disease surveillance in the UK is ProMED-Mail. This is due to the level of verification and moderation by trained epidemiologists prior to any publishing on the website, and thus the data can be treated as more reliable than other sources (Interview, Epidemiologist, HPA, 17th January 2013, Interview, Public Health Strategy Lead, HPA, 29th January 2013).

The UK also do report to these digital disease surveillance providers, and in doing so are seen to be a responsible sovereign, behaving in line with the norms of transparency and greater reporting upheld by GDG. These reports come from a range of individual scientists, media sources, research laboratories, WHO updates and more interesting a significant proportion come from UK state sources³⁶. Whilst the UK doesn't directly contribute to digital disease sources in an official capacity (Interview, Epidemiologist, HPA, 17th January 2013), it is common that press releases from the HPA/PHE are collected on WebCrawler systems (such as HealthMap), and the UK is aware that this will happen prior to its

³⁶ Evidenced by a scan of PRO-Med Mail sources

publishing the original report. Rarely it is acknowledged when discussing digital disease detection systems that they might pick up an outbreak that the state already knew existed, and moreover that the system picked it up because the state reported the event. The view is that the public airing of the signal, rather than who issued the signal creates the impetus for states to act, but this view is flawed if the signal came from the state in the first instance (Davies 2012). What needs to be considered is how the UK uses such systems to ensure transparency, so that it is not accused by the global community of trying to suppress information, appearing to be a responsible actor in the GDG mosaic. The utilization and contributing to systems of digital disease surveillance is indicative of a normative shift within the UK accepting the new understandings of GDG (Interview, Senior Official, HPA, 14th January 2013; Interview, Senior Official, Skoll Global Threats, 16th February 2013). These digital systems are part of a wider shift in global health where states recognize that collaborative working is important for ensuring global health security, and is an important norm to uphold if they desire the longevity of GDG. However, by contributing to these systems through issuing disease information, this could suggest that states still wish to maintain sovereign control of their disease status, ensuring that they can direct the story of the outbreak. This shows a juxtaposition of these strong internal sovereignty and protection of UK interests, whilst simultaneously appearing as a responsible sovereign externally through their transparent actions.

Just as important to the information gathering process has been the technological revolution allowing for instantaneous communication allowing for rapid communication relating to outbreaks. Moreover, the revolution in genomics to be able to type a particular pathogen has allowed for further understanding of the transmission and contact patterns for disease in a globalized world (Interview, Senior Official, HPA, 14th January 2013). The UK uses all tools available to gather data about diseases occurring nationally and globally so that it can plan a suitable response, and protect its interests. Engaging with such efforts could be evidence of the UK's compliance with the norms of GDG. However, by garnering information from a range of formal and informal sources, only some of which are open source, the UK may be aware of outbreaks occurring prior to other states. As such, it can minimize the impact of any disease, maximizing its sovereign interests as a consequence. Accordingly, the UK's engagement with informal surveillance processes is for self-interested

reasons, in an effort to protect its own economy and population. The UK's sovereignty understanding in this way challenges the fourth norm of GDG (p.72), that of state responsibility to GDG beyond that of state sovereignty.

To highlight this point, in 2012 rumours of an outbreak of a novel coronavirus³⁷ on ProMED-Mail sent shock waves around the global health community due to its similarity to the SARS virus, and due to its origins in Saudi Arabia, manifesting at a similar time to the Hajj, with the entailing implications this could have for the spread of disease (WHO 2015, Shafi 2008). At this time, the UK had case presenting with similar symptoms, who had been flown in to a UK hospital from the Middle East. PHE virologists were in the process of typing the virus to ascertain what the patient was suffering from. The UK had not reported the presence of the virus to the WHO under the IHR (2005). At this time, knowledge about this outbreak was simply rumours on these digital disease surveillance systems, and informal conversations between colleagues. Knowing that noise and rumours are part of the process, PHE do not act without clinical information to corroborate, therefore they remained quiet on the issue (Interview, IHR Coordinator, HPA, 24th September 2012). However, it soon became apparent that this was the same pathogen as had appeared on ProMED-Mail, and accordingly, under the IHR (2005), the UK had an obligation to report the case, as well as a normative responsibility to its global counterparts to uphold transparency in reporting and ensure global health security. Instead, the UK chose not to report this disease immediately (Interview, IHR Coordinator, HPA, 24th September 2012).

There are two points worthy of note, firstly, the UK would not have necessarily thought to test for this novel coronavirus had it not been for these digital disease surveillance systems, as it was the postings about this outbreak in the Middle East on ProMED-Mail which caused the laboratory clinicians to test the virus against similar viruses (Interview, Epidemiologist, HPA, 14th January 2013). Secondly, when it was ascertained that this was a novel coronavirus the scientists wanted to publish their findings. This could be individual scientists who wished to do so for their own career reasons, but perhaps these scientists had also internalised the norms of GDG and wanted to share their findings with the globe in an effort to support global health security through increased transparency. However, the HPA and the UK Government decided not to publicise the findings under the IHR (2005) quite yet, as

³⁷ This was later renamed Middle Eastern Respiratory Syndrome- Coronavirus, or Mo-CoV

it should have done as a responsible sovereign in the GDG framework. They had concerns that publishing such information would inadvertently implicate another state (Saudi Arabia) in suppressing disease pertinent information under the IHR (2005), as the rumour on ProMED-Mail had come from Saudi Arabia³⁸. The UK acted this way as it did not want to name and shame Saudi Arabia for their non-compliance with GDG, (Davies 2012, Davies and Youde 2013) and in doing so jeopardize their strategic relationship with this (oil-producing) state (Interview, IHR Coordinator, HPA, 24th September 2012). The UK took this path as a calculated risk to protect its non-health related interests. This is indicative of the tensions that exist both between sovereignty in the UK and understandings of GDG, as well as highlighting the tensions between the UK (plc.) and the HPA/PHE. Although the HPA was charged under the Health Protection Act (2004) to protect the community from the spread of infectious disease, simultaneously it was not able to publish anything that is not in the public interest (Interview, Global Health Lead, HPA, 22nd January 2013). It was deemed by UK (plc.) that the publishing of information about the coronavirus might have potential economic repercussions for favourable oil contracts the UK (Interview, Epidemiologist, HPA, 24th September 2012). Similarly, this event shows the tension between the UK's actions and their desire for global health security. Having shown compliance with the norms of GDG through implementing effective disease surveillance infrastructure, and encouraging others to do the same, the UK would be expected to be forthright with sharing information about a dangerous pathogen within its borders, yet it chose to delay this and prioritise its own domestic economic concerns and maintenance of strategic relationships over this. However as soon as the Saudi Arabian government reported the pathogen under the IHR (2005) instrument, the UK followed suit (Interview, Epidemiologist, HPA, 17th January 2013), eager to appear responsible in fulfilling its global obligations to GDG, once their own strategic priorities have been met. This suggests that whilst the UK has internalised many of the norms of GDG, and wishes to extol its responsibility at the global level, these norms of GDG

³⁸ Interestingly, the sequence of events in Saudi Arabia about the initial discovery of this novel coronavirus also tells something interesting about sovereignty and global disease governance. A virologist, Zaki, detected this novel coronavirus in Saudi Arabia. In an effort to alert others about the presence of this pathogen, he posted this on ProMED-Mail. Within a week Zaki had been fired from his job at the Saudi Arabian Ministry of Health as the Ministry of Health did not approve of Zaki publishing this information in this way (Sample 2013). This suggests that Saudi Arabia were exhibiting a certain protective form of sovereignty that they were not willing to comply with the norms of global disease governance, and were considering other domestic priorities prior to meeting their obligations to other states.

have not been placed ahead of its own internal sovereignty, and its domestic priorities of ensuring a strong economy and strategic partners trumped its contribution to GDG.

4.5 IHR

As a second means of analysing how states showing interact with ideals of GDG or how this alters their understanding of sovereignty, this section analyses the extent to which the UK has embodied and ratified the legislative requirements of the GDG framework, the IHR (2005). Unlike Thailand or Lao PDR, the UK appears to have met all its requirements under the IHR. When the research for this chapter was initially conducted in 2012/3 concerns remained that the UK could not consider itself compliant, as it could not confirm that the requirements were met across all UK's overseas territories, even though for the mainland UK had met all of the core competencies. Subsequently, the UK has undertaken a review of the surveillance and response capabilities maintained in its sixteen overseas territories and three crown dependencies (Hamblion et al 2014). Although they do not meet all of the requirements, notably those of the chemical and radioactive competencies, these overseas territories do have considerable detailed infectious disease protocols. In undertaking such a review, the UK can further appear to be embodying the legislative requirements of GDG, showing that it has been thorough in its planning for compliance, acting as it is expected as a responsible sovereign based on the GDG behaviours, doing what it can to cement the gaps its sees in global health security (Hamblion et al 2014). Moreover, although PHE acts as the 'federal' body for the UK in international affairs, including considerations of the IHR (2005), Health Protection Scotland and Public Health Agency for Northern Ireland have had to implement their own legislative changes to ensure that their own public health work meets with suitable standards to feed into PHE's mechanisms (see Public Health Scotland Act (2008), Public Health (Amendment) Act (2008)). In this instance, the Scottish Act and Health Protection Scotland are particularly clear in stating how it meet the necessary core competencies of the IHR (2005) so much so that it appears that Scotland wishes to do so on their own, rather than reporting solely through the NFP at PHE.

As stated, PHE acts as the NFP for the IHR (2005) on behalf of the UK (including the devolved administrations). The UK suggests that on average 560 emails are sent and received by the UK NFP each year (HPA 2011: 7). The UK has also openly highlighted its compliance to the

IHR (2005) through publication of events it has reported under the different Articles of the legislation (HPA 2011). PHE's report on the IHR (2005) highlights the success of this legislation in improving reporting of outbreaks, and ensuring global health security (i.e. being the legislative embodiment of the norms of GDG). The UK has seen increased communication about outbreaks through the NFP since the introduction of the IHR (2005). This could be due to an increased circulation of pathogens, but it is more likely that this increased function suggests that communication between states and the WHO has increased since the implementation of the IHR (2005) (HPA 2011: 12). This chapter is not able to ascertain if this trend is replicated at the global level, but the fact that the UK wishes to highlight this provides further evidence of its compliance with the IHR (2005) and the norms of GDG. By publishing its activities under the IHR (2005), the UK wishes to once again remind the global community that it is abiding by the legislation and the underpinnings of GDG, as a responsible sovereign and highlighting this activity in its external sovereignty. Interestingly, through this detailed listing, it is possible to see that the UK is not only showing their own compliance with the legislative requirements of GDG, but it is also 'naming and shaming' other states affected by disease. It has reported a number of events under Articles 8 (Consultation) and Article 9 (Other reports) of the IHR (2005). In these instances, the UK has named particular countries from where it wishes to receive more information about particular outbreaks, as the UK has cases of these diseases, varying from norovirus to Lassa Fever to vCJD in persons who have returned from foreign travel (HPA 2011)³⁹. Interestingly, the UK appears happy to name and shame others for their failures to comply with international standards in these instances, in comparison to its reticence over doing so during the initial stages of the MERS-CoV outbreak (p.135). Notably the states mentioned here do not have particular strategic interest for the UK. Accordingly, through this activity the UK also appears to be acting responsibly complying with a range of the requirements of the IHR (2005), and embodying the expected behaviours of a responsible sovereign under the new understanding of sovereignty as responsibility for disease control.

Furthermore, PHE have reminded the global community that the IHR (2005) are of the utmost importance. In their *Global Health Strategy 2014 – 2019*, one of the key areas that

³⁹ This document came from 2011. During revisions to this chapter, an updated version was sought, but was not obtained. It is not clear whether this is because such an update does not exist, or simply it was not shared. As such, please accept apologies for outdated information or errors accordingly.

the UK highlights for action is: *Improving global health security and meeting responsibilities under the IHR (2005) – focusing on antimicrobial resistance, mass gatherings, extreme events, climate change, bioterrorism, emergency response, new and emerging infections, cross border threats and migrant and travel health. (PHE 2014: 5).* Furthermore, *Engaging effectively on issues of global health security is therefore essential to fulfilling international responsibilities, including, but not limited to IHR (2005) commitments (PHE 2014: 11).*

Such policy positions show that PHE understands the importance of the IHR (2005), ensuring global health security and in doing so protect its own economy and strategic interests. However, interestingly, this statement also recognizes that the UK now understands that sovereignty has responsibilities attached to it, and that one of its international responsibilities is to meet the normative and legislative requirements of GDG. This helps to answer the research question of this thesis as it suggests that the UK has reinterpreted its sovereignty to include such disease control responsibilities. One such activity is that of working with the multi-stakeholder framework to manage disease. The following section analyses the UK's engagement with other actors in disease surveillance within its domestic infrastructure, and its involvement in other state's disease control activities. This helps to further investigate the interpretation of sovereignty and sovereign interests that the UK exhibits in comparison to the normative understanding of collaboration for more effective disease control.

4.6 Multi-stakeholder framework

Thorough IHR and normative underpinnings of GDG countries are urged to collaborate and assist each other in developing capacity in assessing and responding to disease events (PHE 2014: 9). The UK recognises this requirement both in terms of its importance for GDG, but also the knock on effect it has on the UK's own health security. As stated in the World Health Report (2005) any truly effective international preparedness and response coordination mechanism for infectious disease cannot be managed nationally. Although it is unlikely that a new infectious disease will originate in the UK, given the ease and speed with which people can travel around the world and the popularity of the UK as a destination, a new infection originating elsewhere could spread rapidly before it is detected by its own regional sources and in the meantime be transmitted unaware to the UK. New diseases

elsewhere in the globe therefore pose a potential threat to the health of the UK population, and may present wider social and economic challenges to the state (United Kingdom Cabinet Office 2015:10). Accordingly, reflecting wider global trends focusing on containment at the source, the UK government has taken the view that there is a need for international cooperation in surveillance (Donaldson 2007:35).

The UK understands that the best way to 'secure' the UK from infectious disease is to tackle the threats abroad; *"Where we can, we will tackle the causes of instability overseas in order to prevent risks from manifesting themselves in the UK"* (HM Government 2010: 10). The focus of the UK's work in the multi-stakeholder framework of GDG has been through the maintenance of functioning surveillance systems globally and a strengthening of IHR (2005) core competencies in other states, so that the UK government is aware of an emerging infection at the soonest possible moment through formal state infrastructures and/or informal disease surveillance networks. Moreover, international engagement is vital to ensuring that the UK remains visible as a responsible external sovereign, and that PHE remains a global leader in GDG, providing state of the art public health services and advice within the UK and globally (PHE 2014: 7)

One of the key areas that the UK has engaged with the multi-stakeholder framework of GDG has been in developing improved disease surveillance and response mechanisms globally. The UK has strengthened global infrastructure, and where necessary offered resources and skills to affect state outcomes of disease surveillance. This has been done bilaterally with UK representatives advising other states about how to improve their disease control, such as offering training in India on international health security (Interview, Public Health Strategy Lead, HPA, 29th January 2013). Similarly, this has been achieved multilaterally through projects including the virology surveillance network between UK and South America, focusing on antiviral drug resistance in pandemic influenza (Interview, Global Health Lead, HPA, 22nd January 2013). The UK has fostered collaboration between governments and to share best practice and training (Interview, Public Health Strategy Lead, HPA, 29th January 2013). This has included sending staff from the global health team at PHE to undertake placements with a range of strategic states such as Thailand, Taiwan and Vietnam to support these states in meeting their normative and legislative requirements of GDG (Interview, Global Health Strategist, HPA, 20th March 2013). The *Health is Global* strategy

includes the goal of *'building stronger bilateral relationships and working together as networks of nations will support stability, security and prosperity in our own economies and in the wider world'* (HM Government 2011: 10). The UK's involvement with other actors to strengthen the norms of GDG, is posited as enhancing the stability and economic prosperity of the UK through greater health security globally. Accordingly, this example of engagement with the multi-stakeholder framework of GDG highlights the challenge between state sovereignty and GDG, but shows that the UK is willing to engage and represent the norms of GDG, especially when this has added benefits to UK plc⁴⁰. This once again suggests that there is a disjuncture between the internal and external sovereignty of the UK, in that it prioritises its internal sovereignty and focus on the benefits to the UK of any external sovereign activity.

As stated (p.72), one of the key norms of GDG is that of collective action for surveillance and awareness of outbreaks. The UK has shown considerable compliance with this norm, to the extent that the UK has fully internalized this concept, and accordingly, the UK acts as a responsible actor in GDG. In fact, the UK even uses this terminology in its approach to global health security. In Cameron's address to the G7 (2015) he stated that the UK was committed to *'More transparency, greater cooperation'* to combat the outbreak of EVD and spread of deadly viruses more generally (HM Government 2015). Unlike Thailand and Lao PDR, the UK rarely seeks external support from other actors for its own disease control activities. This is perhaps the greatest manifestation of the importance that the UK places on (internal) sovereignty in disease control. It does not want external actors involved in its disease control functions, and therefore has developed a strong surveillance and response system so that it can meet the legal and normative requirements of GDG ensuring that it maintains control of all activity with its borders. This shows the UK is protective of its Westphalian sovereignty. However, it wishes to appear as a responsible sovereign both internally (through the provision of disease control) and externally, where it supports and finances a range of disease surveillance and response capabilities elsewhere in the globe. It does this to fulfil the global responsibilities that it feels inherent to its understanding of sovereignty. Two of the key areas of work in PHE's Global Health Strategy 2014-19 are to *'build public health capacity, particularly in low and middle income countries'* and *'strengthen UK*

⁴⁰ This engagement with GDG also benefits the global health community through ensuring health security.

partnerships for global health activity' (PHE 2014: 5). This is done through a myriad of ways, including international partnerships with other states, collaborations with civil society groups and the commercial sector, and working alongside multi-stakeholder organisations such as the WHO and the EU.

One example of this international collaboration is through the UK's contribution to the WHO's Global Outbreak Alert and Response Network (GOARN) (p.48). PHE is a contributing organisation and responds to requests for information on a regular basis (Interview, IHR Coordinator, HPA, 24th September 2012). Furthermore, the UK provides technical assistance and expert epidemiologists ready for deployment globally in the case of an outbreak to work on behalf of the WHO and the wider GDG community (PHE 2014: 11). The UK actively collaborates with the WHO as the apex of the GDG landscape in an effort to improve epidemiological practice, that of early detection and rapid response to emerging outbreaks. It could be suggested that the UK does this partly in an effort to strengthen the norms of collective action for disease control and this activity exhibits tenets of the norm to place responsibility for global disease control above that of its own state sovereignty. However, this may not be an accurate description, as the UK benefits from their involvement with GOARN as they obtain privileged information in the field placing themselves in a position to be able take action sooner to protect the UK from any threat. What this activity might exhibit is the priority over their internal sovereignty and protection of citizens and economy as well as a manifestation of external sovereignty to meet the norms of GDG.

However, the UK doesn't just support GOARN and the WHO in the case of a disease emergency, it also supports other states bilaterally, and offers financial resources and technical support to NGOs involved in outbreak response. A good example of this is EVD (2014-15). In response to the worsening situation in West-Africa, the UK launched a whole government initiative to combat the disease, which included teams from the PHE, DFID, Department of Health (DoH), NHS, Foreign and Commonwealth Office (FCO), the Cabinet office and even the Ministry of Defence (MOD). Not only did the UK commit £427 million towards the response effort, but it was also directly involved in the response on the ground. One of the ways in which it did this was through the deployment of PHE experts to compliment the vast number of NHS volunteers who travelled to the region (Sierra Leone in particular) offering medical and epidemiological support. This was not only through direct

medical care to patients, but also through a large scale healthcare worker training programme and community care delivery planning. Beyond direct care, the UK backed considerable efforts in research and development for treatment option and vaccine trials, in order to provide medical provisions to both halt this outbreak and prevent any future outbreaks of this haemorrhagic fever (HM Government 2015b). Perhaps most interestingly, the UK deployed military support to provide logistical support, 'hands on help' and reassurance to the response efforts (Kamradt-Scott et al 2015). This was a controversial move, being the first time that an international military force has been deployed to combat a health crisis⁴¹. The UK's decision to do so demonstrates that the UK understands disease to be a threat to its security, and inadvertently to global health security, and in the most extreme cases, this requires a more traditional security response⁴².

Interestingly, the majority of the above assistance was channelled bilaterally between the UK and Sierra Leone. However, the UK also contributed to the response through the provision of laboratory staff to the EU led mobile laboratories, as well as providing expertise and staff to the WHO efforts (PHE 2014: 12). Moreover, the UK worked closely with a range of NGOs in the EVD response, notably Save the Children with whom it developed a more formalized partnership, including the establishment of the Kerry Town treatment centre, and funded a range of further research projects through the Research for Health in Humanitarian Crises (R2HC) mechanism (HM Government 2015b). What is interesting about the involvement of the UK in this way is the range of actors that it has collaborated with in order to limit the impact of the outbreak. Through its engagement bilaterally with Sierra Leone, with international organisations such as the WHO, EU and UNICEF, as well as with NGOs such as Save the Children, the UK once again exhibits its commitment to the norms of GDG as part of the responsibilities contained within its understanding of sovereignty, in particular that of collective action for greater awareness of outbreaks and ensuring global health security.

⁴¹ Domestic military forces have been deployed before to combat EVD in Democratic Republic of Congo and Cholera in Sierra Leone

⁴² Other reasons have also been stipulated for why the UK deployed their military force in this instance. Although there are a myriad of reasons, frequently given answers include the need for a trained, organized resource pool of human capacity to mobilise quickly, logistical expertise of the force to deal with infrastructure development to the response, support to a range of British NGOs on the ground, and also a sense that the UK 'needed to do something drastic' to combat the threat of EVD (Kamradt-Scott et al: 2015).

The UK's work to support other state's disease control efforts has dual motivations. It is done to achieve its own domestic priorities, whilst contributing to the public health of others (PHE 2014: 4). As was shown in the first section of this chapter, one of the key domestic priorities of the UK is the maintenance of global health security, and UK public health security. The UK strategy for its overseas work expressly states that there is a secondary motive for its work, such as in the EVD outbreak: *Building public health capacity internationally has benefits for UK public health security... When public health systems are more robust all countries are better protected from threats* (PHE 2014: 13)

This suggests that the internalization of the a norm of collective action, and the appearance of acting as an externally responsible sovereign in order to improve disease control globally, serves the UK's own interests, that of protecting its own health security, simultaneously meets the goal of GDG in ensuring global health security.

However, it is not surprising that states would implement activities at the global level that have benefits for their own state also. All actions of the UK government are supposed to benefit the UK population directly or indirectly (Interview, Public Health Strategy Lead, HPA, 29th January 2013). By improving surveillance and response activities globally the UK indirectly protects its citizens from an outbreak of infectious disease. The cliché runs true that any individual state infrastructure in the GDG landscape is a weakness for the framework as a whole, leaving gaps in the much-desired global health security (Katz 2010, Youde 2010). As stated clearly in *Health is Global: It [effective global surveillance and response] is necessary for making our world more secure, protecting the health of the UK population and contributing to safeguarding our domestic investment in health and the economy* (HM Government 2011: 40).

This section has highlighted the manner by which the UK contributes to GDG through its external actions. It plays a considerable role in strengthening surveillance and response to infectious disease bilaterally and through GDG frameworks such as GOARN. In doing so, the UK can be seen to internalise the norms of GDG such as ensuring global health security, as well as the requirement of the IHR (2005) to support states in meeting their core capacities. Its reasons for doing so are dual purpose. Firstly, it wishes to support global disease control, and in doing so manifest its understanding of sovereignty to entail a responsibility to wider

populations through improving disease control globally. Secondly, these actions also secure its own economy and population simultaneously, strengthening its domestic sovereignty too. Through this engagement with GDG, and with its activities described elsewhere in the chapter, key themes emerge to describe the UK's activity in global disease control, which are analysed next.

4.7 Security, Global Public Goods and Sovereignty

As has been shown, the UK takes a leading role in GDG, extolling its external sovereign responsibilities. As part of this, it worked with a range of actors, to strengthen health systems to meet the normative and legislative requirements in the GDG framework. However, it is fair to say that the UK has done so to also strengthen their own health security and internal sovereignty through provision of public health to its citizens. Moreover, its actions as part of the GDG mosaic show more than just its focus on protecting its population and economy from the effects of dangerous pathogens, but this activity also highlights the UK's sovereign desire for greater influence on a global stage. By asserting its leadership over global health matters, the UK exhibits its security interests, the language of global public goods and as a consequence their understanding of sovereignty.

4.7.1 Security

The framing of disease as a security threat is vital to understanding the UK's compliance with the norms and legislation of the GDG framework and goes a long way to framing its discourse of effective disease control. The UK has recognized that *as the global distribution of wealth has shifted and the economic profiles of individual countries have changed, so too has the pattern of disease.... posing a new and wide range of health security threats transcends international boundaries* (Department of Health 2014: 11). As a recent UK Health Minister (2010-2012) stated, *"You cannot separate health from security, not when so much of our security means preventing or dealing with the aftermath of natural disasters or pandemics"* (Lansley 2011).

However, this is all viewed in economic terms such as *"We... must work together to develop adequate warning systems... and to agree protocols of how the business of the world economy can be sustained during times of crisis"* (Lansley 2011). As noted when analysing

the reason the UK concern itself with infectious disease control, this has been linked to economic stability. It is interesting to note is that in the previous outbreaks of global concern, the impact has centred on the economics. Furthermore, subsequent discussions of the national security impacts of these outbreaks relate to financial implications of travel advisories, lack of trade and travel, rather than broader health concerns (Hanna and Huang 2004, Siu and Wong 2004, Fan 2003).

What has become apparent through this chapter is the means by which the UK uses the terminology of global health security and its own national health security almost synonymously. By doing so, the UK embodies the norms of GDG, including ensuring global health security and in doing so highlights that it understands that its sovereignty now entails the responsibilities to meet the requirements of GDG. However, despite this suggesting a semi- altruistic approach to GDG, and (almost) embodying the fourth norm of GDG, (prioritizing the health of the global community over that of state sovereignty), this may not be the UK's pure motive. In fact, the UK's championing of global health security is an effort to strengthen its own health security and internal sovereignty.

It is not surprising that the UK have elevated the risk posed from infectious disease to the highest level of governmental planning and response⁴³. On the *National Security Strategy* (NSS) (2010) infectious disease is listed as a tier one priority as '*a major accident or national hazard that requires national response, such as... an influenza pandemic*' (HM Government 2010: 27). Furthermore, the risk of human pandemic disease remains one of the greatest threats that the UK faces, with the NSS suggesting disease is likely to cause wider social and economic damage and disruption (HM Government 2010: 31). The UK *National Risk Register* (NRR) has recently included threats of emerging infectious disease, such as EVD (UK Cabinet Office 2015: 20). Similarly, the NRR has recently added antimicrobial resistance as a major concern, adding a further infectious disease to the top of this list. Furthermore, the NRR considers pandemic influenza as '*continuing to represent the most significant civil emergency risk*' warning that it could lower life expectancies, reduce economic output,

⁴³ This approach to placing disease threats at the highest level of security analysis is similar to that of other Western states such as the US and Australia. The United States views pandemic flu as a security issue (Implementation Plan for the National Strategy for Pandemic influenza (Homeland Security Council 2006) and the Australian focus on 'maintenance of social functioning' (Australian Health Management Plan for Pandemic Influenza (Australian Government Department of Health 2014).

cause social disruption and put essential services at risk (UK Cabinet Office 2015: 14). As such, the NRR notably connects the threat posed to the UK by infectious disease both to human health and to the ensuing impact on the economy, which has been shown throughout this chapter. By successfully linking its national security concerns to the rhetoric of global health security allows the UK to take efforts to strengthen their protection against both security threats simultaneously, and use its external sovereign standing and position to encourage other states to ensure global health security with the knock-on effect of strengthening its own internal sovereignty and national security. This dual benefit of the language of security is also mirrored in their use of the rhetoric of global public goods.

4.7.2 Global Public Goods

Despite the firmly grounded security themes, the UK has also highlighted that much of its work in disease control and global health can be considered as a global public good. The UK perceives that its work directly contributes to a global public good for global health, from which all states can enjoy the benefit (Interview, Public Health Strategy Lead, HPA, 29th January 2013, Interview, Global Health Lead, HPA, 22nd January 2013). Such language suggests that the UK understands sovereignty to entail responsibilities to global disease surveillance in the post-SARS era. The provision of global public goods is perhaps the clearest manifestation of a state recognising the responsibilities it has to those beyond its borders to protect against a collective security threat, such as infectious disease. This theme of shared benefits of GDG was discussed in the development of the *Health is Global* strategy, as key decision makers at the Department of Health wrote in *The Lancet* that the UK had witnessed:

The growth of an international social movement that recognizes health as a shared global value that comes from vibrant non-governmental organisations and academic institutions (Donaldson and Banatvala 2007: 859)

A common definition of a global public good is a commodity or service provided by one or many which are non-excludable and non-rivalrous in consumption (Smith 2003). Better still as *“a good which is rational from the perspective of a group of nations collectively, to produce for universal consumption, and for which it is irrational to exclude an individual nation from consuming, irrespective of whether than nation contributes to its financing”*

(Smith and McKellar 2007:2). When applied to disease control it appears that the norms encapsulated in GDG framework could form component parts of a global public good. Fundamentally, if a country with a disease took steps to control it, or if they implemented preventative methods to limit the disease's spread, there would be real benefits to the rest of the world, as this control would reduce the risk of other states importing the disease (Barrett 2007). Furthermore GDG is non-excludable in that no one in a global population can be excluded from benefiting from any real effort towards ensuring global health security, collective action for greater awareness of outbreaks, and a shared responsibility for disease control globally (p.72). These are universal outcomes, with the global population benefiting from the reduction in transmission of infectious diseases. Similarly, GDG is non-rivalrous in that if one state benefits from the provisions of the framework such as transparent sharing of information about potential disease threats this does not prevent anyone else from benefiting from the same globalised information as well (Smith 2003).

However, this may not be the case. According to the logic of GDG, it would make little sense for states and other actors setting up effective surveillance systems to not share disease pertinent information with other states, as it is widely understood (by the GDG norms) that global cooperation is required in effective disease control (Youde 2010:56). The benefits of GDG such as ensuring global health security, improved disease surveillance and response and greater transparency about diseases occurring are non-excludable in that all states are made aware of outbreaks through normative developments such as digital disease surveillance or through the more formalised IHR (2005) functions. They are also non-rivalrous in that the UK's access to the information about an outbreak does not exclude other states from accessing the same surveillance data, if a truly transparent and global framework exists. However, a reoccurring issue in building international cooperation for surveillance is the comparative importance of various threats to different population groups (Chen 1999: 292).

Sandler (2004: 107) argues that global disease surveillance could involve a degree of rivalry as monitoring for one disease distracts from monitoring for others (and the GDG focus on monitoring for ILI could suggest this). He also suggests that there exist a degree of excludability in that surveillance may be prohibited from certain geographical areas, but this argument takes a narrow state-only focus of surveillance practices and does not account for

the inclusion of non-state sources which monitor most geographical regions. However, it could be argued that digital disease surveillance is excludable as they are essentially reliant upon private goods (computer, internet connection, literacy in the English language) to be able to access the information they provide. These can be referred to as 'access goods' which restrict the scope and benefit of the public good, not only reducing the overall benefit, but may lead to perverse targeting: those who have access goods are likely to be better off, so that the benefits of providing the goods will tend to be skewed away from the poor (Woodward and Smith 2003). Whilst health ministries globally appear to have access to the internet, not all regional disease control units in Thailand and Lao PDR do not have these private goods and therefore they would not be able to engage with any information provided by digital systems to the extent to which their counterparts in the UK can.

In global disease surveillance the targeting of which diseases are reported often focuses on diseases which are considered to be a security threat to the West. Despite the fact that GDG can, on the surface, be considered a global public good, on closer inspection, it is clearer that GDG may in fact be a Western public good. Those who gain the most from GDG are Western states, such as the UK, seeking to glean as much information about disease threats as possible to protect themselves and their interests against pathogens. Therefore, although the UK thinks it has internalised the norms of GDG in an effort to provide a global public good acting as a responsible sovereign externally, it is apparent that this is another example of the UK's self-interested role in GDG. It seeks to obtain the benefits of this Western good to strengthen its internal sovereignty, but the framing as a global public good encourages more states to comply with the norms, furthering the benefits. Nevertheless, the UK continues to use the language of global public goods in an effort to be able to garner the benefits of such a framing. The PHE *Global Health Strategy* states:

PHE believes that health is a global public good, and that we should use the skills and expertise at our disposal to contribute towards addressing the global health challenges that we face and to reducing global health inequities... In doing so we achieve our own domestic priorities, whilst contributing to the public health priorities of others (PHE 2014: 4).

Interestingly in such a statement, PHE recognise the very tension that this thesis seeks to explore, that between GDG and sovereign priorities. Although the language of global public

good may have other connotations, it can, in this instance represent the norms of GDG. Yet, simultaneously the UK recognises that there is a self-interested nature to upholding the norms of GDG, and that it can fulfil its own domestic priorities whilst maintaining a global standing as a 'responsible' state.

These domestic priorities, or internal sovereign responsibilities, are also clearly articulated through UK policy. According to the *Global Health Strategy 2014-2019*, the key priorities stated are that any international and global health work must benefit the population health to England, and that they should contribute to UK governmental international objectives and strategic priorities (PHE 2014: 22).

Our responsibility is to harness the opportunities of globalisation to improve the health of people across the world, and in particular people in the UK. A healthy population is fundamental to prosperity, security and stability – a cornerstone of economic growth and social development. In contrast, poor health does more than damage the economic and political viability of any one country – it is a threat to the economic and political interest of all countries. (HM Government 2011)

This encapsulates the responsibilities and priorities that the UK exhibits towards GDG. The UK wishes to appear to be a responsible actor on the global stage through its compliance with the norms and legislative requirements of GDG. In this above phrasing, this can be encapsulated in '*harness[ing] the opportunities of globalization to improve the people across the world*'. Yet, the policy immediately re-frames this normative shift as a security concern. In doing so, the true priorities and responsibilities of the UK are understood, those of economic growth and political interest. What this implies, is that the UK uses the rhetoric and framework of GDG in order to glean the most from the system in order to further its internal sovereign desire for greater security and even for greater power globally. Whilst all states may strive to do this, it clearly articulates the disjuncture between the external and internal sovereign faces of the UK, which are discussed next.

4.7.3 Sovereignty as Self-Interest

This chapter has shown the range of activities that the UK performs in disease control both within its borders and beyond. It shows how each of these activities and policies highlights

its interpretation of sovereignty. What has become clear from this analysis is that the UK's internal and external sovereignty can be understood as separate paths for sovereign responsibility. This suggests that the UK understands sovereignty to be a divisible concept, and one that is constructed in the context in which it appears. However, one thing that both these two paths of sovereignty have in common is that UK self-interest remains at the centre of all decision making in disease control.

Internally, the UK has been clear in the importance it places on its sovereignty and have even embodied a Westphalian understanding of domestic sovereignty as focused on non-intervention. As was shown, the UK does not welcome external actors into its internal provision of disease surveillance and response mechanisms. Unlike Thailand and Lao PDR who work with a range of state and non-state actors to develop their public health infrastructure, the UK rejects such activity within its borders. However, this might simply reflect the fact that as a high-income state, the UK has been able to meet their IHR (2005) requirements and the normative goals of GDG on their own, not necessitating external assistance. The only area where some intervention in domestic affairs has appeared is through the UK's internalisation of the IHR (2005) and the norms of GDG, however these activities have been done to strengthen its own disease control capacity and strengthen its surveillance and response protocols for national health security, to show other states that its understanding of sovereignty entails responsibilities as codified in GDG norms.

Externally, this chapter has highlighted the range of responsibilities that the UK considers part of its sovereignty and role internationally. First and foremost, the fact that the UK has met the core competencies of the IHR (2005)⁴⁴, and remains in the minority of states to have done this highlights that the UK understands the importance of a global framework for disease control, and that it has obligations to its global counterparts to meet the standards set as part of this. Similarly, the UK has internalised three of the four norms of GDG, those of ensuring global health security, greater reporting of outbreaks and encouraging collective action for improved disease surveillance and response. This suggests that the UK envisions its sovereign role to include a responsibility to wider populations to limit the spread of disease. However, the one norm of GDG that has not been internalised is placing GDG ahead of state sovereignty. The UK has provided no evidence of doing this, suggesting that their

⁴⁴ This is except for some of their overseas territories (Hamblion et al. 2014)

efforts with GDG extends to those areas where the UK is equally able to benefit from global activity, such as through ensuring global health security and encouraging others to do so using the rhetoric of sovereign responsibility. Their rejection of this fourth norm highlights the continued importance of the state in GDG, and also the crux of the argument of this chapter and thesis, which is that states will embody the ideals of GDG as long as these match their own domestic priorities.

However, the UK pushes this external role in GDG one step further than simply acting as a responsible sovereign. As has been suggested, the UK considers itself to be a leader in GDG, and global health more generally. They recognize that as a consequence of this, it has been able to exercise a profound influence on health globally (Hassan et al 2015: 2). The UK has not sought to position itself in such a role circumstantially, but it identifies an enormous opportunity for the UK to help further improve health globally whilst at the same time enhancing its own disease security and strategic position (Hassan et al 2015: 3).

The UK has played a leading historical role in global health, being one of the founding states of the International Sanitary Conferences (1851), as well as having a key position at the WHO, the G7, Commonwealth and in EU health activities. Through its more recent move to champion GDG and facilitating a leading position within the framework, the UK is able to strengthen its influence as one of the most networked states in the global health matrix. This allows the UK to have global connections and influence in all parts of the world (Hassan et al 2015: 4). Through the considerable involvement of the UK in the multi-stakeholder framework of GDG, such as bilateral and multilateral assistance to support states meet its IHR (2005) competencies, develop its public health infrastructure, offer response services in the case of an outbreak, the UK has used its epidemiological prowess for political, strategic and economic gains (CSIS 2010). This is an extension of its understanding of external sovereignty. The UK shows that beyond meeting its expected obligations under the GDG framework, it takes this one step further to further its own self-interest and position globally.

This can be seen through its particular support to work with Saudi Arabia and other Gulf States in the development of their disease control capabilities. The UK wishes to maintain a good relationship with these states, perhaps in an effort to ensure continued access to their

oil supplies and sovereign wealth funds. This constitutes part of the UK's considerable activity in Sierra Leone in the EVD outbreak. Following on from the UK's involvement in post-conflict reconstruction in the state (2000 – 2007), the UK has a strategic relationship with this West – African state, which it understands to be immensely valuable to ensuring stability in this region. Its external sovereign role in this way not only contributes to strengthening global health security and ideals of GDG, but also serves the UK's domestic business interests too (Duggan 2014).

Furthermore, as was shown earlier (p.124), one of the key tenets of the UK's *Health is Global* strategy is to enhance the UK's role as a market leader in well-being, health sciences and medical products. Through appearing as a leader in GDG, the UK can produce health related products that can capitalise on the UK's favoured position in the GDG framework and assimilate its products with those of best practice for effective disease control. Moreover, through involvement in bilateral and multilateral relationships with a number of other states and actors, the UK can champion UK products accordingly. As such, although appearing as a responsible sovereign in GDG, the UK is also capitalising in its leading position in the multi-actor framework.

Material, security and strategic interests play an important role in the construction of sovereignty in the UK and how it exhibits this concept. Lake (2003: 308) highlights that variations of exhibiting sovereignty are often motivated by pragmatic self-interest as much as they are guided by normative principles. GDG constructs sovereignty as something to be superseded by normative goals of GDG encouraging working at the global, rather than sovereign state level through the language of global public goods. However, this is not what is seen in this case study of the UK. As has been shown throughout this chapter, economic, security and strategic interests of the state take priority over the normative requirements to act in a responsible fashion as required by the GDG rhetoric. Accordingly, the UK exhibits a different interpretation of sovereignty to that of Thailand and Lao PDR, although there are some similarities of domestic prioritisation (p.247).

4.8 Conclusion

This chapter began with a brief overview of the context of health policy in the UK and the developments of the health system accordingly. It highlighted the pivotal role played by the NHS in maintaining effective disease surveillance and ability to offer rapid response to an outbreak. This offered the first manifestation of sovereignty in the UK context, as the UK exhibits 'strong' internal sovereignty, as through NHS mechanisms it is able to limit the spread of disease amongst the population. The chapter also contextualised the issues encountered with the devolution of the UK, with health as area where responsibility has been left to the devolved nations. However, the UK is one state in the eyes of the international community, thus the devolved nations work as a unified whole when contributing to their external sovereign role, although internally, the UK's sovereignty is divided. Moving on to examine infectious disease control, this chapter highlighted the BSE / vCJD and the 2001 and 2007 Foot-and-mouth outbreaks. Although these were both animal health diseases, and did not affect the population physically to a great extent, they placed a considerable burden on trade and economic stability within the UK. These incidents sought to show that the UK understands the threat of disease not only in pathological terms, but the socio- economic impact that an outbreak has on a state's economy can be more severe. Linked to this, the UK has also ascertained that beyond the actual risk of the disease, public perception of the pathogen is just as important to limit the socio-economic fall out of an outbreak, which was shown to be the case in the response to the EVD outbreak

Similar to Thailand and Lao PDR, the next section of this chapter analysed the domestic infrastructure for disease control provided by the UK. This included routine reporting of disease through GPs, hospitals to regional health boards and the state epidemiologist. Simultaneously, the UK has developed a strengthened syndromic surveillance capability, to get real time warnings of potential outbreaks. Equally, the UK has engaged with digital disease surveillance organisations, particularly ProMED-Mail, and informal dialogues between colleagues based in other institutions globally to be alerted to, and to gain information about, emerging pathogens. This has left the UK with a strong disease capacity being able to detect, respond and prevent most outbreaks, notably through PHE and the NHS provision, highlighting their strength in disease control as a responsible sovereign.

However, due to the importance placed on its internal sovereignty, the UK doesn't welcome actors into their domestic infrastructure for disease control, yet it does play a considerable role in disease control and GDG elsewhere in the globe. The chapter analysed the UK's external role in GDG. Any truly global disease control activity requires the commitment of all states, in order to not be substantiated by its weakest link. As a consequence of this, the UK has invested considerably in improving the global surveillance and response capabilities and in doing so has manifested itself as an external responsible sovereign. This has been done bilaterally through their financial and technical assistance to a range of other states with which they have relationships. The states with whom the UK work in disease control are of strategic interest which led to the questioning of the motivation for such actions, whether the UK's assistance is a self-interested effort to maintain good relationships with these states. Similarly, the UK has engaged with the multi-actor framework of GDG. This has included working with GOARN, WHO, G7, EU and a range of non-governmental organisations. To highlight its workings, the UK's role in the EVD response was examined to show the extent to which the UK appears to be working beyond its sovereign borders to ensure global health security. However, as was highlighted the UK acts out of self-interested motivations, and its global activity contributes to ensuring global health security but also strengthens its own national health security as through such working it will develop networks for information sharing to report any threats which may damage the UK population or economy. Such activity highlights the dichotomy between its internal and external sovereign roles, and the priority that the state places on its internal responsibilities over that of those externally.

The culmination of this empirical work showed three themes that emerged through the UK's activity in GDG. First and foremost, the dominant frame of reference when discussing infectious disease in the UK has been that of security. This includes both global health security and its own national health security. These terms tend to be used synonymously by the UK to keep up the rhetoric of GDG, and yet maintain its own domestic priorities of national security. In order to achieve this goal of global/national health security, a second theme emerges, that of a global public good. The UK posits that its activities in GDG represent a global public good. Whilst the norms of GDG may constitute a global public good, those of greater reporting of disease outbreaks and increased transparency between

states, on closer inspection this chapter suggests that this is not a global public good, as the agenda is skewed towards Western interests. As such, this is once again evidence of the self-interested nature of the UK's involvement in GDG. The final theme that has been assessed through this chapter and the priority for this thesis has been the UK's exhibition of its understandings of sovereignty. This chapter has highlighted both the internal and external faces of sovereignty in the UK based on Lake (2003). These both entail a number of responsibilities that the UK has to its domestic population, economy and the wider global community. This shows that the UK has understood that sovereignty is connected to a range of associated behaviours that a sovereign should perform, such as provision of disease control infrastructure nationally and globally. However, this chapter has also considered when tension emerges between the UK's internal and external sovereign role, the UK will prioritise its domestic requirements, including their strategic and economic interests over that of GDG.

This chapter can start to answer the central research question by understanding how the UK interprets surveillance and sovereignty and if this challenges GDG. The chapter demonstrates that the UK has a well-developed and active surveillance infrastructure. This insures that it is able to detect and respond to any outbreak that may occur within its borders. The maintenance of this system suggests that the UK has strong internal sovereignty, as it is able to provide citizens with this disease control infrastructure, and therefore freedom from the threat of disease. Simultaneously, however, the UK also plays an active role in global surveillance, both through supporting states bilaterally to develop their disease control infrastructure, and through contributing to the GDG mosaic through participation in networks such as GOARN, reporting diseases to the WHO under the IHR (2005) and pioneering the rhetoric of globalised disease control. As such the UK is acting as a responsible sovereign, and shows an equally strong external sovereign manifestation. However, this is not always the case, and on further analysis it appears that the UK is not the responsible sovereign it wishes to portray. Its actions have challenged GDG, such as the delay in reporting outbreaks for strategic reasons, and its focus on ensuring its own national security over GDG. This shows that despite the normative and legislative agenda championing global responsibility for disease control over sovereignty, this has not been achieved in the UK case, and the UK's sovereignty is directly challenging GDG. Yet, the way

in which the UK exhibits this sovereignty helps to show that sovereignty has both an internal and external face, as suggested by Lake (2003), and that its meaning is dynamic, depending on context (i.e. whether we are discussing the UK's sovereignty within its own borders, or its global reach).

However, this thesis seeks a broader analysis of the interaction between sovereignty and GDG than the UK's standpoint. Leading on from this case study, the next chapter will study Thailand's activities in disease control domestically and globally. It will show that Thailand exhibits some similar trends to the UK, including the framing of disease as a national security threat, and strengthened internal sovereignty, shown through its focus on protecting the Thai economy from the effects of disease. However, there are considerable differences to be observed in its understanding of sovereignty and how this is shown in contrast to the ideals of GDG, with Thailand favouring regional rather than global disease control efforts.

Chapter Five Thailand: Sovereignty as Regional Leadership

5.1 Introduction⁴⁵

As was shown in the previous chapter, the UK understands the tension between GDG and sovereignty in self-interested terms. The UK internalises the norms of GDG when it suits, gleaning information about outbreaks happening elsewhere from global surveillance structures and strengthening their position globally through the GDG rhetoric. Yet, the UK only itself complies with the normative and legislative requirements of GDG when it does not cause a tension domestically. This suggests that the UK has not internalised the fourth norm of GDG, and has not placed state responsibility for disease control above state sovereignty. However, the UK has a different conceptualisation of disease control to that of the other two case studies, as a high-income state and one which has not been framed as a risky space for the emergence of pathogens.

South East Asia has often been referred to as a *hot zone* of emerging infectious diseases, as described by academics (Coker 2006), politicians (Obama and Lugar 2005) and the states themselves: *'The South East Asian region has rapidly become the hub of the global epidemic. Thailand and its neighbouring countries are among the most severely affected countries in this region'* (Ministry Of Public Health, Thailand 2009:57). The reason for this has been attributed to a multiplicity of factors, including a greater concentration and connectivity of livestock, persons and products with unsafe animal husbandry practices (Horby et al 2013), a lack of development due to poor populations experiencing rapid urbanization, deforestation and encroachment of wildlife and problems with effective governance and control of infectious disease (Coker et al 2011). As Fidler (2010b: 287) states:

Rather than being recognized for heightened level of diplomatic endeavours on health, Asian countries have been more frequently associated with problems that challenge or threaten global health governance. These include being the origin and epicentre of dangerous

⁴⁵ This chapter is taken from interview data and policy research conducted in Spring 2013. Where possible, information has been updated. However, since the research was conducted there has been considerable political turmoil in Thailand. Political unrest during Autumn 2013 with suspended elections and the removal of Yingluck Shinawatra as Prime Minister at the start of May 2014, followed by a Military coup d'état later that month. Since then the state has been ruled by Military junta, the National Council for Peace and Order. Where information about disease control under the junta is available, it has been included. It is assumed that other processes and policy relating to disease control has remained the same despite political changes.

outbreaks; SARS, H5N1, threatened by the continued spread of HIV-AIDS, Malaria, and dengue fever and in danger from negative health impacts predicted to be caused by climate change.

By the 1990s, after the fall of the Khmer Rouge, the end of the Vietnam War, the withdrawal of Vietnam from Cambodia in 1989 and the end of conflict between the communist party of Malaysia and Thailand, a fundamental shift in international relations in South East Asia was observed (Acharya and Stubbs 2006 :125, Dieter 2009). Traditional security issues are no longer as important as they used to be, and countries have understood that economic instability is of much greater concern than classical security risks (Dieter 2009). The 1997 financial crisis in Southeast Asia and its subsequent political, social and economic implications underscored the necessity for policy makers to focus on non-military security threats (Panasponiprasit 2009: 51, Haacke 2013:156). This has included climate change, natural resources scarcity, infectious disease, natural disasters, irregular migration, famine, people smuggling, drug trafficking and international crime (Caballero – Antony 2010: 312). The majority of these are transnational in nature i.e. they involve threats arising from cross border activities that impact security referents such as the economy or public health, and by extension the legitimacy of governments (Haacke 2013:157). Infectious disease has been framed as a security threat, but the referent object the threat appears to be the Thai economy, as will be shown in this chapter. Similarly to the UK, Thailand's efforts to work towards GDG as a responsible sovereign appears to be for the purpose of minimising economic loss, as well as protecting the health security of its citizens, highlighting its focus on its internal sovereignty over that of its external role.

Thailand has recognized that disease outbreaks and localized epidemics increasingly have implications for transnational security (Rodier et al 2007). This securitisation of infectious disease was initially seen in Thailand as one of the first states to frame HIV/AIDS as a national security threat (Chuenchitra et al 2005 as seen in Ear 2012). Thailand publically stated that this outbreak represented a security threat for both their population and economy. Since the 1990s it has taken a proactive approach to limiting the disease's spread through efforts in treatment and prevention such as the 100% Condom Campaign (Phoolcharoen 1998). Accordingly, Thailand has been touted as one of the 'success stories' of public policy affecting epidemic outcomes of the disease (World Bank 2000). With a large

sex trade industry, Thailand understood that the implications would be on a vast scale, and may have feared international condemnation for allowing the virus to spread (Pisani 2008:179). However, taking into account the pivotal role of tourism in Thailand's economy (and a large part of that is sex tourism), it could be seen that Thailand's efforts in HIV/AIDS control have been undertaken in an effort to maintain this sector's survival in supporting national and economic security and in doing so, it once again highlights the importance of internal sovereignty to Thailand.

This approach to disease, security and the internal sovereign priority to protect the economy is a recurring theme that will be seen throughout this chapter. Thailand, similar to the UK, appears to be relatively compliant with the norms of the GDG regime, and have met the majority of the capacity requirements of the IHR (2005). However, Thailand does not engage with GDG purely to show itself as an external responsible actor or for altruistic reasons, but does so in an effort to protect its economy, and ensure a regional leadership role to strengthen its enduring sovereignty.

This chapter highlights this interpretation of sovereignty, following a similar structure to the other two case studies, in order to be able to make suitable comparisons. This chapter starts with an introduction to the state, offering a brief background to the political situation and health system within Thailand. It examines two key outbreaks that have helped to frame Thailand's approach to disease control showing that Thailand's behaviour focused on protecting their economy from potential fallout, rather than enacting the goals of GDG. Following on, it shows the domestic actions that Thailand has taken for disease control and in doing so this chapter analyses how these actions embrace the normative and legislative understandings of GDG. However, it also highlights where these norms have not been internalised and offer examples of how the tensions between sovereignty and GDG manifest in Thailand's disease control activity. Alongside assessing its involvement with the multi-stakeholder framework of GDG, Thailand has an interesting priority for disease control that of border controls. This frames foreign populations posing the greatest risk to Thailand (and their economy) as well as its internal sovereign role to protect their own population. This is where considerable efforts remain in Thai disease surveillance policy.

The second half of this chapter analyses Thailand's involvement at the regional level. Thailand, as the most materially and economically powerful state in the region, has taken the lead in disease control efforts. Thailand has become a 'would-be' regional health governor, and in doing so it has arguably extended its own sovereign power in disease control beyond its borders. This chapter shows that Thailand has eagerly taken on this role to maintain its appearance globally acting as a 'responsible sovereign', complying with the norms of GDG through the collaboration with other states to improve disease control efforts. Yet, on closer analysis, the reason Thailand does so may rest on the desire to protect its economy from diseases circulating in the region. This chapter concludes that Thailand offers a different interpretation of sovereignty in the face of GDG to that of the UK or Lao PDR. Similar to the UK, Thailand wishes to protect itself and its economy from the threat of infectious disease, and it is this domestic priority that takes the fore compared to its activity in GDG. Yet, its considerable work in regional disease control offers a different framework for disease management to that of GDG, despite similar norms. Thailand champions regional disease governance and encourages regional counterparts to contribute to norms such as transparency and frequent reporting of disease outbreaks. However, this not only suggests that Thailand are not acting as a responsible sovereign in the GHG matrix as it prioritises regional over global activity, but such regional leadership ultimately serves Thailand's desire to protect its economy from the foreign threat of infectious disease, and highlights the preference for internal sovereign responsibilities over that of regional or GDG.

5.2 Background to Thailand

To understand Thailand's sovereignty and why it may prioritise its economy and its desire for a regional role over GDG, it is important to understand its domestic situation politically and in the health sector. Thailand is defined as an Upper Middle Income country (World Bank 2015b), representing a different development level to that of the UK and Lao PDR. Thailand is a constitutional monarchy, modelled on the UK system of government. Interestingly, Thailand has a very different history from its neighbours in Southeast Asia as the only state in the region which was not colonised, and nor did it suffer from the communist revolutions that its neighbours endured in 1960s and 1970s. However, until the 1990s, Thailand had been predominately governed by military rule. In 1992, following violent demonstrations, the path to electoral democracy was opened and until 2014,

Thailand has had a number of democratically elected governments. The most important premiership for health and disease control was Thaksin Shinawatra's government (2001-2006). Not only did this coincide with the outbreak of SARS, which acted as a catalyst globally for change in infectious disease control (p.1), but as part of his tenure, he implemented a range of populist policies, including the public subsidy of healthcare (Chanlett-Avery 2015). In 2001, Thailand introduced the universal health Coverage of *Health Care Policy* (Pitayarangsarit 2010: 1). The introduction of this policy, dubbed the '*30 baht policy*' offered all Thai nationals access to cheap healthcare and represented one of the first movements by a developing state to improve access to health. As a consequence of this scheme, offering medical treatment to all Thai citizens for 30 Baht (about 55p), mortality has been reduced, and life expectancy has increased to 74 years at birth (Sen 2015). However, such domestic policies ultimately cost the Shinawatra his government, as the drain on public coffers from such initiatives were not universally welcomed. This action suggests that Thailand, under Shinawatra at least, understood the importance of the role of health provision in internal sovereignty and the responsibility it has to protect its citizens from the threat of disease through improved healthcare.

Such initiatives have allowed Thailand to make remarkable progress in health, pioneering primary health care within their territory. Furthermore, in 2002, the connection between disease and security witnessed in response to HIV/AIDS (p.13, this thesis) was formalised through the creation of the NHSO tasked with *providing health security to every Thai citizen* (NHSO 2014). However, the terminology of *health security* needs further analysis. The NHSO define such health security as *the belief that every person born as a Thai should feel secure irrespective of being sick or not - and a system life security which gives a person confidence that they will be able to indulge in appropriate health behaviour, and would be able to get complete access to health promotion and disease prevention services* (NHSO 2014). It could be presumed that this terminology of health security is aligned with the concept of human security, and the human right of individuals to access healthcare (Paris 2001, Evans 2002). However, as this chapter shows Thailand's framing of health security is much closer aligned with protecting national security from the threat of infectious disease, than it is with individual rights.

Shinawatra's *30 baht policy* was codified in 2003 in the *Constitution of the Kingdom of Thailand* to include health as a basic 'right' of the public, which should be provided by the state (Kingdom of Thailand 2003). Under the new constitution, "*all Thai people have the right to obtain universal access to health facilities*" (NHSO 2014). Interestingly, a difference can be seen between this terminology of human rights and reality. Codifying the right to health in the constitution could be seen as progressive, however, this only applies to Thai nationals, and the provision of health is not offered to migrants or non-Thai residents. Although such rhetoric may echo global norms surrounding primary healthcare, similar to the designation of health security, Thailand's provision of universal healthcare does not represent a progressive move towards improving primary health, nor will it offer greater health security. Instead, such a move shows the external / internal sovereign divide that Thailand's political and health spectrum capture. What can be seen is that the domestic priority of Thailand is to combat the threat that external citizens pose to its national security. The irony of such an approach, however, is that by not offering health provisions to non-Thai residents, Thailand may actually be putting Thailand at higher risk of infectious disease and therefore weakening its internal sovereignty (Stevenson and Cooper 2009: 1389). As will be shown in the next section, the outbreaks of SARS and H5N1 threatened the national security of Thailand, and required the state to consider its domestic responsibilities alongside the burgeoning trend towards GDG.

5.3 Outbreaks

As this thesis examines how sovereign states interact with the GDG framework of disease control, it is important to illustrate key outbreaks which have occurred in Thailand in recent years, leading to the creation of policy and normative action. The focus on economic stability and regional leadership can be seen in two recent outbreaks, those of SARS and H5N1 (Avian Influenza).

The outbreak of SARS (2002/3) was pivotal in Thailand's shift in policy for disease control, as it provided a dramatic demonstration of the weaknesses in national and global capacities to respond to emerging infectious diseases, and in many ways was a watershed event that had a transformative effect on public health globally (Horby et al 2013:853). The outbreak spread to over 30 countries with 8000 infections and 800 fatalities that cost the region an

estimated US\$60Billion most of which came from declines in the tourism, service, aviation and restaurant industries (Youde 2010:139, ADB 2003). Thailand was one of the first states to appreciate SARS' significance to South East Asia, and offered a good example of how the perception of a threat can, in some instances be as damaging as the threat itself (Enemark 2007). Thailand only reported 8 cases of SARS, with only 2 deaths. However, despite this small case number, the Shinawatra government made every effort to promote Thailand as a SARS zero- transmission country to limit the damage to tourism and the wider economy (Curley and Thomas 2004, Enemark 2007:29). This once again reaffirmed that Thailand's response to an outbreak is to limit the impact that the (fear of the) pathogen can have on its economic standing. This has remained its internal sovereign priority, and will be shown throughout this chapter to be a main tension between state and GDG.

Secondly, Thailand was instrumental in summoning the involvement of ASEAN in regional disease control, through a series of ASEAN + 3 meetings, culminating in the region being declared 'SARS free' by June 2003 (ASEAN +3 summit). These actions can be seen as the start of Thailand's regional leadership in disease control. By establishing regional collaboration Thailand placed itself at the centre of discussions relating to regional disease governance. This regional leadership will be a further theme in this chapter as Thailand has interpreted its sovereignty not only protecting its own economy and population against the threat of disease, but it also promotes itself as a regional player in the disease governance landscape. This is a departure from the responsibilities that a sovereign should be perform as understood by the GDG framework, showing that there is a clear tension in Thailand between sovereignty understood by the global health community and how Thailand understands it itself.

The other important recent outbreak in Thailand is the case of Highly Pathogenic Avian Influenza (H5N1) in 2004. This outbreak was more specific to Thailand, yet offered the international community a different (and negative) view of Thailand's regional and global cooperation and responsibility in disease control. Although H5N1 infected 25 people in Thailand, with 17 confirmed deaths (Chompook et al 2009), the infection spread globally and caused panic amongst both the global health community and the agricultural export sector. At the end of 2004, it was estimated that H5N1 outbreaks in Thailand had cost approximately \$880m (Fourchier et al 2005:420). This outbreak really highlighted the

importance of the economy in Thailand's interpretation of sovereignty in disease control, due to the fact that the outbreak greatly threatened Thailand's poultry industry, which plays a significant role in Thailand's economy (approximately 1.2% of the total GDP) (Seetoh, Liverani and Coker 2015). This is evident in the fact that it took approximately three months for the Thai government to announce that H5N1 had emerged within their borders (Ear 2012:42). The virus appeared in January 2004 after deaths at poultry farms were noticed, but these were initially attributed to poultry cholera. Given the pivotal role of the poultry industry and the influence of livestock entrepreneurs on the government, government officials felt compelled to protect the industry from the epidemic's impact (Safman 2009). This outbreak shows that Thailand had not fully internalised the norms of GDG, including that of prompt reporting. Therefore, it did not act as a responsible sovereign, prioritising its internal economic priorities over global health security. When questioned, the same Shinawatra who acted responsibly to limit the burden of SARS, in a bid to reassure the local population and export partners stated:

"I can certify that the country is free of bird flu, the country is safe, the government has paid attention to this issue for a long time." (Shinawatra 2004)

However, it soon emerged that the Thai government failed to announce the outbreak, despite laboratory confirmation, because they did not want the public or agricultural markets to panic fearing economic uncertainty (Sydney Morning Herald 2004, Klinger 2004). Thailand is the 4th largest poultry exporter globally (Nicita 2007), providing more than 40,000 jobs nationally, (Tiensin et al 2005) and, consequentially, Thailand is reliant upon this industry for the stability of their economy. The explicit shirking of their responsibilities to the GDG community was exemplified in the words of the deputy Agriculture Minister Newin Chidchob: *"the chicken industry would have collapsed immediately and the economy would have lost more than 100 billion baht"* (as seen in Klinger 2004).

Shinawatra had invested heavily in this export oriented business (Safman 2010:169). Rural populations that manage poultry farms were his key supporters, and thus there were real concerns about announcing an outbreak which would decimate his supporter's livelihoods. As such, the presence of large poultry industries in Thailand was especially identified as a possible cause of the initial secrecy (Forster 2009, Safman 2010). Although the health

ministry was working on the crisis before official confirmation of the disease (Enemark 2007:45) Thailand was criticized for their failure to adhere to the new norms of reporting after SARS (Davies 2012b: 597). Through such action, Thailand showed that it prioritised its sovereign economy over that of its external responsibilities to the GDG architecture. However, a further reason for this failure to comply with the norms of disease control might have been a desire to conceal the fact that Thailand was not able to develop effective surveillance infrastructure to accurately detect such an outbreak (Davies 2011:440). Therefore Thailand's obfuscation of the disease might be linked with wanting to save face in not being able to live up to their domestic responsibilities and internal sovereign role in disease governance. Whichever one of these may resemble the truth, as highlighted by Sheetoh, Liverani and Coker (2015), Thailand managed to successfully reframe the outbreak as an economic issue, rather than a public health concern with risk posed to the economic interests of the poultry industry.

With mounting global pressure, Thailand understood its responsibilities to GDG and reported the outbreak to the international community. Poultry exports were estimated to have fallen from 500m in 2002 to almost zero in 2005 (Nicita 2007) and it resulted in the culling of 63m birds at an estimated cost of 96bn baht (US\$3.1bn) (Na Ranong 2008). Furthermore, the EU and Japan, the largest markets for Thai chicken banned their imports as a precautionary measure (Seetoh, Liverani and Coker 2015:45). In an effort to re-establish relations, Shinawatra downplayed the risk posed by this pathogen, championing all Thais to *"unite and eat chicken"* which included a public relations stunt filming Shinawatra eating *"spicy Thai chicken dishes"* (Perrin 2004). Nevertheless, the industry was hard hit by outbreaks of highly pathogenic avian influenza between 2004 and 2007, causing animal losses but also started a global scare resulting in import bans and measures that restricted trade in poultry and poultry products (Burgos et al 2008: 37).

This example of H5N1 shows that domestic politics and economics play a decisive role in whether or not a country declares an infectious outbreak which then jeopardizes global health security and GDG (Thomas 2006). The fact that Thailand delayed reporting of H5N1 (and simultaneously Indonesia raised the concern of virus sharing), highlights the importance of internal sovereignty to these states and prompted some analysts to question the post- Westphalian optimism expressed by Fidler after SARS (Davies 2012b: 599; Price-

Smith 2009: 154). As has been shown in these two outbreaks, Thailand has emerged with two precedents for its sovereign responsibilities for disease control; those of protecting its own economy over the health of its own or any global population and its desire for regional leadership in any regional governance initiatives, wishing to set the terms of reference for disease control in the Mekong basin. The next section of this chapter analyses the domestic surveillance and response mechanisms in Thailand, assessing how these function alongside global and regional disease governance structures. By examining the domestic disease control methods it highlights the ways in which Thailand has embraced the norms of global disease control, although interpreting these norms in its own sovereign way.

5.4 Domestic Surveillance

Following on from an examination of two recent outbreaks which have affected Thailand, and after highlighting initial tensions between sovereignty and GDG, the next step is to analyse the domestic architecture for disease control in Thailand.

The central agency for health in Thailand is the Ministry of Public Health (MOPH). It has a mandate *“To be the core agency in developing the health system with quality, efficiency and equality; with participation of the people, communities and all sectors for good health of all Thai people in order to achieve a good and sustainable society”* (MOPH 2013). The MOPH’s disease surveillance is coordinated by the Department for Disease Control (DDC), which is then sub-divided into the Bureau of Epidemiology (BOE) and the Bureau of Emerging Infectious Diseases (BEID), working simultaneously with other departments including the Department of Livestock and Vector Borne Disease and the National Influenza Centre (NIC).

As defined in the constitution, *the [Thai] state shall prevent and eradicate harmful contagious diseases for the public without charge, as provided by law* (MOPH 2009: 10). This, as elsewhere in the globe, starts with effective surveillance (Lee and Thacker 2011). The disease surveillance system has continuously evolved, beginning with the establishment of the nationwide 506 reporting system by BOE, based on medical records (Interview, Senior Official, Ministry of Public Health, 1st April 2013). This is Thailand’s national notifiable passive disease surveillance system, with the primary objective to monitor the epidemiology of 84 diseases of national concern, with priority being focused on ILI (Interview, Epidemiologist, Ministry of Public Health, 20th March 2013). This is unsurprising, cognisant

of Thailand's focus on outbreaks which could threaten the Thai economy, rather than vector borne or endemic diseases which are managed by other departments. This focus reflects wider MOPH policy, as well as wider global paradigm of infectious disease control. Interestingly, this is in spite of the fact that ILI do not represent the highest burden of disease in Thailand which are cancer and hypertension (Interview, Lead GDDER, US-CDC, 26th March 2013). By focusing disease surveillance efforts on these diseases, this is a further piece of evidence that Thailand prioritises its economy at the cost of its population's health. However, this is interesting to note as it suggests that their internal sovereignty prioritises their economy over provision of freedom from the threat of disease to its population, as was shown in the UK case study. Moreover, the focus on these diseases suggests that Thailand seeks to adhere to the normative understandings of GDG to some extent.

In a similar effort to show their compliance with a further normative understanding of GDG, including transparency of disease pertinent information, the 506 system is updated on a weekly basis and remains open access to provide data relating to specific outbreaks within Thai borders. Whilst this is a clear indication of the internalisation of this norm of global disease control, all is not as it seems as this open access data source only contains material written in Thai. The Thai government has a reputation for trying to keep information confidential, for example hiding outbreaks on their webpage or publishing only in the Thai language so the diplomatic community will not be able to access it. The act of publishing the 506 system publically shows compliance with the norms of GDG, but at the same time highlights tensions between GDG surveillance and their sovereignty in the GDG landscape. Thailand wants to appear to be a responsible manner and is sharing the data but it also fears the consequences of doing so. As was seen in the outbreak of H5N1, when disease pertinent information was shared, their poultry industry suffered a considerable blow. Thailand may be showing this reticence to publish in English for fear of socio-economic repercussions (Interview, MBDS Coordinator, 5th March 2013). However, with the power of social media and digital disease surveillance, the likelihood is that Thailand would not be able to keep the global community in the dark about an outbreak in the future (Ear 2012:55/6, Interview, Border Health Coordinator, WHO, 23rd April 2013). As a consequence, this may alter the balance of power between sovereignty and GDG that was seen in the H5N1 outbreak.

BOE's 506 system builds upon the existing decentralized public health structure and an extensive network of Village Health Volunteers (VHVs), renowned for its success as being the backbone of the healthcare delivery system in Thailand (Kauffman and Myers: 1997). This local engagement in public health monitoring has resulted in an enormous amount of detailed community data regarding clinical cases and outbreaks of a variety of diseases, and this effectively feeds into the 506 reporting system for outbreak management (MOPH and WHO 2009: 10). The work of these VHVs is then mirrored by the efforts of the Surveillance and Rapid Response teams (SRRTs). The SRRTs aim to prevent, monitor and respond effectively to any emerging health threat. They produce weekly reports that are submitted to BOE and BEID for analysis, sharing more widely where necessary. There is an SRRT in each district across the country, working on a network basis, so that the BoE and BEID are able to respond to any emerging public health threat in a timely manner (MOPH 2005: 463). These SRRTs effectively bridge the gap between district and national disease surveillance where cracks appear due to paper based communication and a lack of clear hierarchy between units (Interview, Senior Official, Ministry of Public Health, 1st April 2013). The creation of SRRTs represents a real commitment by the state to limiting the spread of disease within its borders, highlighting its sovereign role in this area. Furthermore, Thailand was instrumental in establishing SRRTs, and such teams have been modelled elsewhere in the region (Kamradt Scott and Yoon in Lee et al 2013:111). The initiative to create these teams shows Thailand emerging as a regional trailblazer in disease governance, with other states mimicking their actions. Its support to Lao PDR and Cambodia in the establishment of similar teams (Interview, Senior Official, Ministry of Public Health, 1st April 2013) is a further example of Thailand internalising the norms of GDG embodying their sovereign responsibilities in supporting and coordinating with other actors to uphold regional or global disease security.

However, despite the innovations of the 506 system, the VHVs and SRRTs considerable social inequities remain between urban and rural populations, with disease affecting rural and migrant populations in particular (WHO 2012b: xii). Disease surveillance capabilities vary dramatically from region to region and weak links in the system make it difficult to assess how competently Thailand would manage a pandemic (Hanvoravongchai and Coker 2011). Interestingly, the areas which have the greatest surveillance and response

capabilities are the border districts. Taking a national security approach to infectious disease (McInnes and Lee 2012), Thailand views international traffic of people as a threat to its population, understanding disease to be exogenous to its territory and an external threat to its sovereignty. The next section of this chapter examines the focus on border surveillance in Thailand, which remains a key area of work by the MoPH.

5.4.1. Border Areas

One attribute of Thailand's disease surveillance policy which is abundantly apparent is its focus on border areas. This is visible in two manifestations: risk of cross border infections and their focus on Point Of Entry (PoE) controls and the focus on migrants as vectors of emerging infectious disease. This is justified as border provinces in Thailand represent the locations with the highest burden of communicable diseases, including Malaria, Tuberculosis, HIV/AIDS, diarrheal diseases and emerging infections (MOPH 2011:11). Consequently considerable resources have been allocated by Thailand to combat diseases in these provinces through strict PoE controls rather than systemic strengthening of public health systems (Lee et al 2013:6). Accordingly the Border Health Development Master Plan (BHDMP) was developed as a collaborative framework between the WHO and the MOPH to improve the quality of life of border populations (MOPH 2011: 3). Through heavy investment in this area of disease control, Thailand is explicit in the desire to frame foreign nationals as 'infected' and a threat to Thai national security, in a us/them dichotomy which is far from the human security and rights based approach suggested by their moves towards universal health care.

Thailand invests heavily in strengthening border controls in an attempt to limit diseases reaching its population and impacting on its economy. This focus is particularly pertinent as the surrounding states (Myanmar, Laos PDR, Cambodia and Malaysia) do not have the same level of infectious disease controls, or compliance with IHR (2005) (WHO: 2012b). For example, in Thailand there are 86 notifiable diseases, but Cambodia has approximately 70 and Myanmar only a few (Interview, Senior Official, Ministry of Public Health, 1st April 2013). This makes international cooperation in disease control complex to manage resulting in infectious disease pathogens putting the Thai population at risk (Patrick 2011: 230). This is a particular concern with the discussions surrounding the ASEAN economic integration in

2015, and the increased risk to health security, which have been of frequent concern to all members (ASEAN 2014). The tangible example of Thailand's efforts in border regions is through its strengthening of PoE diagnostics. For example, as stated by the head of the BOE: *'the IHR (2005) requirements need to be focused at the PoE so that any pathogens that are brought into the country by migrants, visitors and travellers can be seen as soon as they enter Thailand to limit their spread'* (Interview, Senior Official, Ministry of Public Health, 1st April 2013).

This includes considerable medical checks of individuals crossing borders, despite the considerable ethical and practical issues with such methods (Interview, Border Health Coordinator, WHO, 23rd April 2013). This approach has been widely rebutted due to its flawed public health understanding, as it ignores incubation periods of infectious disease and the inability to actively detect an infected person without laboratory testing⁴⁶. Nevertheless, once again the Thai government can be seen to highlight the us/them dichotomy as it sees this 'external' source of migrants as a threat to the 'internal' national security. The exemplification of disease being external to Thailand, and needing a national security framing shows a further tension for disease control in Thailand. Taking this national security approach to disease control, and focusing on protectionist activities, is the opposite the normative understandings of GDG, which focuses on a globalised response to global issues. The sovereign focus on PoE represents a further manifestation of Thailand's sovereignty in its disease control practices, representing a direct challenge to the GDG framework.

Moreover, there are also reasons as to why Thailand's national security focused actions generate a greater risk to the health security of the state. Firstly, there is no explicit budget allocated for border activities in health or the health of foreign nationals resident in Thailand. As discussed, Thailand's *30-Baht health scheme* is only available to Thai nationals (MOPH 2009:59)⁴⁷. This does not cover the estimated 2-3 million migrants living and

⁴⁶ This is similar to the efforts to screen for EVD at airports in UK and USA. Although there is no public health reason to do so as passengers may well not be exhibiting symptoms when they travel, and even if they had, they are only picking up those with fevers which could be lowered with conventional medicines, such as paracetamol or ibuprofen. Nevertheless, governments needed to be seen to be doing something in the face of a potential threat to their territory, so these PoE controls were seen as a political placebo.

⁴⁷ This should be compared to that of the UK, which although does not provide a full complement of health services to migrants, one of the areas that treatment is provided free of charge regardless of country of

working in Thailand and an additional 141,000 displaced persons residing in temporary shelters along the border (IRC 2015). Due to the former totalitarian government and considerable human rights abuses in Myanmar there is a considerable migrant Burmese population in Thailand (Human Rights Watch 2015). Access to health care for these migrants is reliant on a complex classification of their legal and administrative status in the country. Accordingly, the health security of both displaced persons and migrants is closely linked to local Thai communities in which they reside, and the willingness of the aforementioned VHV to offer medical help to this group (WHO Thailand Website). The irony of such an approach not offering health provision to this vulnerable population is that it may actually cause a greater burden of disease on Thai nationals. For example, the uneven access to health services among migrants is a factor in the emerging drug resistance and the risk of outbreak prone diseases that threaten the health security of the entire nation and beyond (WHO 2012b: 15). This is based on the assumption that if a migrant contracts an infectious disease and does not visit a health service, then there is a greater probability that he/she will pass this infection on to a number of people due to persistent symptoms than a counterpart with access to medical facilities and treatment options. Yet, the rejection of support to migrants once again highlights the importance that Thailand places on sovereignty and protection of its own. This is a considerable disjuncture from the ideals of GDG which enshrines a responsibility for global populations.

This Thai national security discourse for border areas includes a comprehensive communicable disease surveillance system to improve surveillance of displaced persons residing in temporary shelters along the border, which has proved a valuable tool ensuring timely detection, confirmation, and control of communicable disease outbreaks in displaced person shelters (MOPH 2012:1). This has been established to protect the health security of populations both in the temporary shelters and the surrounding communities (MOPH 2012: v). However, whilst there has been considerable investment in surveillance systems in these border areas, health provision to those infected is still not offered by the state. The WHO or other non-state actors fund the majority of this work. Whilst the Thai government views this group as a security threat to its health security, it does not have the resources to provide

residence is that of communicable disease (Interview, Global Health Lead, Health Protection Agency, 22nd January 2013)

health services to foreign nationals. This chapter will revisit Thailand's border control efforts, however in an effort for consistency across case studies for comparative analysis, this section continues to analyse the domestic control infrastructure at play within Thailand, to understand to what extent its activities comply with or contradict the norms of GDG.

5.4.2. Digital Disease Surveillance

Similar to the UK and Lao PDR, Thailand has incorporated the benefits of digital disease surveillance into their domestic infrastructure for disease control. Digital disease surveillance falls into two broad categories in Thailand: the use of technology and media scanning. A development of the Thai surveillance system, representative of broader shifts in disease surveillance globally as part of the normative understandings of GDG has included using information technology to support rapid reporting and the reduction of workload for epidemiologists and VHVs. This has involved reporting disease pertinent information via the internet or with mobile phones, beginning with pilots focused on outbreaks of avian influenza in locations with previous high transmission (MOPH 2005: 457). The use of mobile phones and GPS tracking has become particularly important as a form of active surveillance amongst villages and remote areas (Interview, Director, ChangeFusion, 18th March 2013). This data is fed into the national 506 system, to provide real time alerts to the BOE. The hope would be that it would eradicate the need for the paper based 506 system in the future.

The other manner through which the MoPH engages with digital disease surveillance is through media scanning. There are two paths through which this is done. Firstly the risk communication team at BEID has established a media- watch system, which is prepared by hand, rather than through online media crawlers. Those responsible scour Thai news sources, social media, CNN and other international news sources and summarise any unusual disease events occurring for wider distribution in Thailand. Once compiled the paper based findings are shared with heads of departments in MOPH on a weekly basis (Interview, Senior Official, Ministry of Public Health, 2nd April 2013). However, this method could not be strictly referred to as digital disease surveillance, as it is done by human hand compiling printed material for distribution in print, yet the principle is very similar to that of HealthMap (p.51).

However, one problem that was continually raised about this method of horizon scanning by those interviewed is the sensationalist nature of the Thai media (Interview, Epidemiologist, Ministry of Public Health, 2nd April 2013, Interview, Associate Director, Rockefeller Foundation, 25th April 2013, Interview, Director Open Dream, 21st March 2013). It is thought that the media frequently manufacture rumours and conspiracy theories on a range of issues, including disease, to highlight government corruption or secrecy. This may mean that outbreaks are exaggerated or fabricated to create political or economic tensions within Thailand. Although this thesis has not sought to validate such claims, it is important to highlight that this media-watch may not prove useful as a surveillance tool as it could do, as some of the information presented may not have an epidemiological evidence base. Similarly (and similar to that of Lao PDR p.229), there are also issues related to the state control of media. Thailand ranks 134/179 on the Press Freedom Index (2015) and therefore the veracity of information that may be presented in a media scan may need to be further questioned (Interview, Associate Director, Rockefeller Foundation, 25th April 2013)⁴⁸. These two issues have sought to highlight that there continually exists a tension between what the media may report and evidenced laboratory confirmation of pathogens (Interview Senior Official, Ministry of Public Health, 1st April 2013). As such, media-watch may not prove a fruitful method of disease surveillance as it could do other states.

In an effort to engage with technological developments and the shifting agenda of the GDG framework, approximately 4-5 years ago, BEID implemented a systematic review of digital disease detection sources daily. These include ProMED-Mail, CIDRAP, WHO website and announcements from other Ministries of Health's websites. The aim of this is not only to get real time information about any potential health threats, but it also seeks to get more accurate information to challenge any rumours or accusations in the press, as these systems are edited by epidemiologists who are able to consider the new story in relation to scientific and social risks posed by any pathogen. Through this system, the MOPH provides the wider population with real information about the health threats emanating from within or outside Thailand. It is interesting to note that this BEID team is comprised of 6 people and is in the process of expansion, showing the importance of this function⁴⁹. This also represents a

⁴⁸ although this is not as much of a concern in Thailand as it is in other parts of South-East Asia – see p 218

⁴⁹ This is in comparison with one person in the UK fulfilling this function, and no such team in Lao PDR.

move by Thailand to engage with global actors in disease surveillance, and in doing so is evidence of Thailand acting a responsible external sovereign as per the norms of GDG. Once collected, this information is analysed before being circulated to their network of over 800 members. Members of this network include the WHO, CDC, MOPH, Border Agencies, Universities and Thai Airways, allowing a range of stakeholders involved in disease control, transport or the economy up to date information about circulating pathogens to watch out for unusual events (Interview, Senior Official, Ministry of Public Health, 2nd April 2013). The manner in which this group functions is also particularly pertinent in that Thailand appears to be openly sharing all the information that it gathers about disease threats with a range of sources, and in doing so is exemplifying the norm of transparency heralded by the GDG framework. However, this activity appears to be as much about collating data which may have public health use for the benefit of the Thai population, as it is about preserving reputation of state disease mechanisms. If Thailand detects an outbreak rumour on such systems, it can then get ahead of any potential negative press and frontload the global community with further information about the outbreak, to avoid being accused of failing in its normative and legislative duties to promptly report outbreaks. This once again suggests that Thailand is keen to be seen to be compliant with the responsibilities that are bestowed upon it by the global community as an actor in the GDG framework, yet does so to protect its own reputation, and presumably its economy from any socio-economic fall out of a misconstrued rumour.

This section on domestic surveillance has shown the methods by which Thailand manages its disease control and engages with the normative understandings of GDG. It is clear that with the 506 system and the aforementioned technological innovations, there is considerably more information about outbreaks known to the MOPH than in previous years (interview, Epidemiologist, Ministry of Public Health, 2nd April 2013). Although this section has shown a variety of examples of Thailand internalising norms of transparency, data sharing, and global health security acting as though it understands that sovereignty globally has a number of inherent behaviours it must meet. Simultaneously, it was interesting to note that the WHO country office in Thailand also has a staff member dedicated to online media scanning for disease intelligence (interview, Border Health Coordinator, WHO, 23rd April 2013). This suggests that the WHO does not believe that Thailand has fully internalised

the ideals of GDG and it may not be sharing all the information it has about diseases occurrence within its borders once again prioritising its domestic sovereign responsibilities. Moreover, it is interesting that the WHO country office prefers to receive information from non-state digital disease surveillance providers such as CIDRAP and ProMED-Mail, those which are not Thai sources. This once again hints that the WHO recognises that there is a tension between Thai sovereignty in disease control and that of the GDG framework. Whilst this section has attempted to account for the normative engagement with the disease governance framework, the next section analyses Thailand's compliance with the legislative requirements of the GDG agenda, the IHR (2005).

5.5 IHR

For an effective evaluation of the tension between sovereignty and GDG, it is important to analyse how Thailand has engaged with its legislative responsibilities under the IHR (2005). This offers a tangible yardstick for assessing the sovereign priorities of the state, as it requires considerable investment and legislative changes. It is unsurprising, that similar to its domestic surveillance, Thailand is keen to appear as a responsible actor to the global community through upholding its IHR (2005) requirements. Thailand has not met all the competencies of the IHR (2005) (WHO 2012b, WHO 2014). Nevertheless, it has fulfilled the criteria to a greater extent than their regional counterparts (Interview, Border Health Coordinator, WHO, 23rd April 2013). For instance, BOE has been designated as the NFP for the IHR (2005) function. The MOPH has a world-class reference laboratory for typing pathogens. Furthermore, Thailand has regularly reported outbreaks to WHO since the implementation of the IHR in 2007 (Interview, Border Health Coordinator, WHO, 23rd April 2013). Accordingly, Thailand has shown that they take its global obligations to the IHR (2005) seriously. In this way, Thailand appears to have foregone part of its sovereignty by allowing the external influence of the WHO through the IHR (2005) into Thai domestic affairs.

However, whilst Thailand meets several of the criteria for compliance with IHR, the state remains possessive of its surveillance data (Ear 2012:55, Elbe 2010:178). BOE still prefers to use informal communications with international counterparts for disease surveillance, rather than the formal IHR mechanism (Interview, Senior Official, Ministry of Public Health,

1st April 2013). This avoids implicating itself politically or jeopardising its economy through reporting diseases to the whole global community. Since the outbreak of H5N1, Thailand has become acutely aware of the potential damage that reporting could entail for Thai industries, and therefore competing forces are at play in the decision making relating to their international obligations (Interview, Lead GDDER US-CDC, 26th March 2013). Although appearing to be adhering to the IHR (2005) and broader norms of GDG, this is superficial. Thailand prefers to share information informally with neighbouring states to limit the public health impact of a particular outbreak (Kamradt-Scott, Lee and Xu in Lee et al 2013:94). Taking its own approach favouring informal communication again suggests a departure from the responsible sovereign image towards Thailand's own interpretation of sovereignty.

Any disease pertinent information which is distributed either informally or formally is checked with BOE before circulating to make sure that Thailand remains IHR compliant before they share information which could challenge the 'responsible state' image of Thailand. However, the weakness with this system is not the availability of information relating to outbreaks which might pose a threat to the security of Thailand, but rather the fact that politicians have on occasion tried to block such information's release and in doing so assert a different understanding of sovereignty to that of GDG (Interview, Director Open Dream, 21st March 2013; Interview, Lead GDDER, US-CDC, 26th March 2013, Interview, Epidemiologist, WHO, 23rd April 2013). It was suggested by interview participants that Thai politicians do not like to admit that they have infectious diseases within their borders, preferring to ignore any problem, rather than combat it. This is evidenced by numerous denials of cholera outbreaks in refugee camps along the Myanmar border, as well as the denial of H5N1 by the Thaksin government (Interview, Epidemiologist, WHO, 23rd April 2013). Even the BOE has to check with politicians, including the Minister of Health, Minister of Department of Livestock Development, Minister of Tourism and Foreign Affairs prior to submitting data through the NFP function. However, this is beginning to change, as the benefits of international cooperation are becoming more apparent, showing politicians the benefits of cooperation for disease control. Furthermore, as Thailand seeks to emerge as a regional leader in this area, it needs to further its international working to establish their presence, and as part of this appear as responsible actor, adhering to the norms of GDG or

similar regional governance norms to encourage greater collaborative working and trust building.

A further area of Thailand's reluctance to embrace the legislative requirements of the IHR (2005) is their attitude to negotiations and adoption of the legislation itself. Thailand, similar to other Asian governments, approached the IHR negotiations in individualistic and state-centric manner focusing on its own sovereignty, rather than multilateral-orientated manner, declining to form alliances or partnerships or even seek advice from other actors in developing policy positions (Kamradt Scott, Lee and Xu 2013:90). Although as will be shown (p.191) there are considerable regional initiatives in Southeast Asia for disease control, several of which place Thailand at their apex, the area of IHR (2005) negotiation at the WHA was not one of these. Kamradt-Scott, Lee and Xu (2013: 98) have shown that compliance with IHR (2005) was largely seen as an area of national sovereign responsibility as opposed to a region-wide collective problem. Consequently, as much as there is evidence to suggest a greater willingness for regional cooperation for disease governance has emerged, such as through the plethora of regional initiatives in disease control, there are also indications that existing power dynamics and Asian conceptions of sovereignty have not altered in any meaningful way (Kamradt-Scott, Lee and Xu 2013:98). Thailand has shown that it recognises that there is a pressure to balance its own conceptions of sovereignty for disease management, and take on the legislation required by the GDG framework. However, although it has not been willing to engage with other actors in the IHR (2005) negotiation process, Thailand has welcomed a number of other stakeholders into their governance of disease within their borders, in line with the collaborative norms of GDG, which will be analysed next.

5.6 Multi-stakeholder engagement

As with other states in the region, and globally as part of the rhetoric of GDG, Thailand engages with a range of other actors to limit the spread of infectious disease. This is in spite of the fact that Thai cultural values, including the importance of managing its domestic politics (such as disease control) on their own, were mentioned by several interview participants (Interview, Border Health Coordinator, WHO, 23rd April 2013; Interview,

Epidemiologist, WHO, 23rd April 2013; Interview, Lead GDDER, US-CDC, 26th March 2013)⁵⁰. However, as was shown (p.13) ensuring global health security has often meant '*pre-emptive intervention by actors with global reach*' (Ingram 2009). The mere involvement of other actors in this area of Thai sovereign control could be evidence of Thailand engaging with the norms of GDG, and putting these before its own sovereign choices. For if, as suggested, Thai cultural values encourage enduring sovereignty and do not encourage outside support, then by welcoming in a range of bilateral and multilateral support, Thailand shows how the concept of sovereignty can be dynamic and can change over time and context. Through engaging with other actors, Thailand is seen to understand its global responsibility as part of its sovereignty and uphold the rhetoric of GDG.

External assistance for disease control began in 1958 to help with a significant cholera epidemic (Ear 2012:42). Since then the MOPH has cooperated with regional and international partners as a means to improve national capacity for disease control and ensure mutual health security (MOPH 2013b, Interview, International Office lead, Ministry of Public Health, 20th March 2013). This includes other states, international organisations, non-governmental organisations and civil society. Yet to date there exists no clear guidelines or policy on how to work with external actors, or dictating which areas Thailand may be willing to cede sovereign control, and this is arranged on a case-by-case basis (Interview, International Office Lead, Ministry of Public Health, 20th March 2013). In particular, considerable national and international investment and political capital has gone into boosting the region's surveillance role and response capacities. This has involved collaboration with a range of actors including international organisations such as Food and Agriculture Organisation (FAO), UNSIC, World Organisation for Animal Health (OIE), World Bank and bilateral relationships with donor states such as USA, Australia and Japan who have encouraged greater regional cooperation and a strengthening of disease detection systems (Lai, Kamradt Scott and Coker 2013:213).

5.6.1 Bilateral State Assistance

Perhaps the most significant partnership for disease control has been with United States, from whom support has been received from a range of departments, including Center for

⁵⁰ This could be linked to the past of not having been colonized, the only state in the region which was not subject to external rule during their history.

Disease Control, (US-CDC), Armed Forces Research Institute of Medical Sciences (AFRIMS) and to a lesser extent the USAID. Since 1980 the US-CDC has built disease surveillance programmes in Thailand (Ear 2012:40). In collaboration with the MOPH, US-CDC have focused on major health threats and as their partnership states *[they] stand ready to meet new challenges like detecting deadly outbreaks* (US-CDC 2012). In line the GDG rhetoric, US-CDC's work in Thailand has tended to focus on those diseases which pose pandemic potential, such as ILI. From 2001 – 2010 CDC ILI investments in Thailand totalled about \$10 million, and during that time the MOPH increased its own investment in this area, appearing to share values surrounding perceived health threats, ultimately providing more than \$97m in to this area of disease control (US-CDC 2012b). US- CDC has also played an active role in ensuring that Thailand meets its requirements under IHR (2005). It does this through funding to develop infrastructure and technical support to best reach disease control capacities. This reflects the US's wider global health security agenda, as it is in the US's best interests to have functioning IHR (2005) mechanism globally.

One of the ways in which US-CDC has explicitly helped improve disease surveillance in Thailand is through the establishment of the Global Disease Detection Emergency Response System (GDDER). Located in Thailand, GDDER is part of a network of seven global points tasked with helping countries identify and respond to emerging infectious disease which they might not be able to manage themselves (US-CDC 2012). This was established in the aftermath of SARS (2004) to promote global health security by building capacity to rapidly detect and contain emerging health threats. Unsurprisingly when funded by the US-CDC, the focus of GDDER is the prevention of pandemic influenza, which they state *"remains an important global health challenge, particularly in largely populated regions such as South East Asia"* (US-CDC 2012b: 11). This system supports Thailand in developing capacity for disease detection and response. It is based at the MOPH, but the technical advisory (and funding) comes from US-CDC (Interview, Lead GDDER, US-CDC, 26th March 2013). This is framed by US-CDC as a mutually beneficial arrangement as it allows US-CDC to use their presence in Thailand to protect Americans, as Thailand is able to detect diseases occurring sooner, and therefore encourage a more rapid response. This arrangement also furthers US-CDC's regional presence in states where they do not have offices (such as Myanmar). This is facilitated through close collaboration with Thailand, which has established

relationships for cross border working with its neighbours (p.189). Furthermore, with US-CDC championing ILI surveillance, Thailand can focus on the areas that it wishes to prioritise in disease control, those of PoE and border migrant controls. With US-CDC maintaining the more traditional tenets of global health security. Thailand appears to be acting as a responsible state, but in actual fact its focus on PoE and border regions suggests a rejection of the norms of GDG and their prioritisation of its own domestic framings. Although there is the appearance of a responsible state, in actual fact Thailand's interpretation of sovereignty trumps efforts for a true move towards GDG.

Another area of US involvement in disease control in Thailand is the military medical services. Since 1958, AFRIMS has provided a key research laboratory in Thailand and has subsequently began collaborating with Royal Thai Army Medical Component (Ear 2012:41). Its mission is *'to conduct basic and applied research for development of diagnostic test, drugs and vaccines for infectious disease of military importance'* (Embassy of the United States 2013). Funding for this activity comes from the US Department of Defence with the mandate to *'protect the US military from diseases that cannot be studied in the US'* (Ear 2012:43). AFRIMS plays a key role in providing resources when Thailand's MOPH lacks technical or laboratory capacity, yet once again the focus remains on capacity for ILI detection. However, AFRIMS does not involve itself in broader national or regional surveillance for public health benefit, but focuses on threats that could directly affect the US military. Local diseases are not prioritised and the research focus remains on ILI and other threats to global health security (Ear 2012:51). However, by allowing this activity within their borders, Thailand further exhibits the norms of ensuring global health security and increased transparency for disease awareness, without having to shift its own domestic sovereign priorities or policies.

Finally, USAID also has an active, yet smaller role in disease control in Thailand, with the head of the regional division located in Bangkok. It maintains passive disease surveillance for HIV/AIDS, Malaria, TB and emerging infectious diseases (Interview, Infectious Disease Coordinator, USAID, 26th March 2013). However, this surveillance is done at a regional, rather than at the state level in Thailand. Moreover, their role in disease control is not in the monitoring, but capacity building at the local level to teach VHV how to report diseases effectively. Notably, each of these US departments suffer from a constant change of policies

and staff turnover. This has meant that continued working is sometimes challenging and consensus and collaboration internally and with that of the Thai state is often difficult (Ear 2012:50). Nevertheless, this relationship between US and Thailand has endured, representing the greatest bilateral involvement for health in Thailand. Beyond bilateral relationships for improved disease control, Thailand has actively engaged with a range of international organisations and NGOs and in doing so has exhibited an understanding of sovereignty as responsibility to the wider global health community.

5.6.2 International Organisations

A further key actor in disease control in Thailand is the WHO. By engaging with WHO to the extent that it does, Thailand once again appears compliant with the norms and legislative changes of GDG, and appears as a responsible state. However, as aforementioned (p.170), the focus of the WHO's work in Thailand for disease control remains in border and migrant health and the related security risks. Thailand has fostered the WHO to work in this area so that its domestic priorities can have further resources, limiting the transmission of communicable diseases into Thailand through populations who it perceives to be a threat to its national security (Interview, Border Health Coordinator, WHO, 23rd April 2013). Moreover, by encouraging the WHO into this area of work which falls outside the normative ideals of GDG, this allows Thailand to legitimise this area activity to its regional counterparts whilst maintaining their sovereign control of decision making in disease control. This is a considerably different role for the WHO compared to its activity in other states in Southeast Asia where it enjoys a more prominent and more traditional technical advisory position in broader surveillance and response. However, Thailand has greater capacity for managing communicable diseases on its own compared with its regional counterparts and a well-functioning universal health system (for Thai nationals). Thus, the WHO has increasingly found its role in Thailand to be focused on border areas. This is particularly apparent in areas where Thailand has a leading regional role, such as its reference laboratories and the creation of Field Epidemiology Training Programme (FETP) (p.186) (interview, Border Health Coordinator, WHO, 23rd April 2013).

5.6.3. Non-Governmental and Regional Organisations

Similar to Lao PDR, Thailand works with a range of non-governmental actors for assistance in disease control. The most important of these for disease surveillance has been the Rockefeller Foundation. Rockefeller activities started in 1999 when they appreciated the security threat posed by infectious disease and the need to strengthen disease control as key to regional stability (Interview, Associate Director, Rockefeller Foundation, 25th April 2013). Rockefeller's work has focused on establishing the MBDS (Rockefeller Foundation 2010), a regional digital network for communication between disease control departments for discussing potential outbreaks of concern in the region (MBDS 2013). Through such activity, Rockefeller Foundation has been considered a thought leader in cross border surveillance. The MBDS initiative's aim was to increase transparency and prompt sharing of information at the regional level, and represented one of the first efforts encompassing the shift towards the norms of GDG (or regional disease governance). MBDS champions the key ideals of ensuring global health security, transparency, prompt reporting and even makes an effort to encourage states to promote these norms over that of their state sovereignty, suggesting states share all disease pertinent information with their neighbours informally. Such an initiative arguably created a space for other actors which enshrine the values of GDG to develop (Rockefeller Foundation 2010:11, Interview, Associate Director, Rockefeller Foundation, 25th April 2013). Such initiative was not limited to Thailand and Southeast Asia, but the creation of MBDS spurred similar regional and global digital networks (Interview, Senior Official, CORDS Network, 16th February 2013). It could even be suggested that the early success of the MBDS regional network represented a test case for how states more widely may accept and internalise the norms of GDG and how this may challenge individual state's sovereignty.

The MBDS regional network offered a communication platform for disease cooperation between countries at a time when there was little trust to build on. As highlighted by one of the architects of the system at Rockefeller Foundation, the system came into naissance when global health security was becoming an ever more pressing issue, and when it became clear that, in this region with strong understandings of state sovereignty as well as cultural, political and ethical sensitivities, that considerable information was being shared between colleagues who had established informal relationships (Interview, Associate Director,

Rockefeller Foundation, 25th April 2013). Such information exchange between colleagues was proving increasingly vital to the public health response for the region (p.187). Importantly, this method of informal communication did not threaten economic or political stability as the information was shared between public health teams and did not involve other ministerial departments or trade infrastructure (Interview, Associate Director, Rockefeller Foundation, 25th April 2013). Consequentially, public health professionals could be more honest about the disease situation than they may be if it were written up and shared internationally. The MBDS system created a forum for these discussions to be shared with others in public health roles, and importantly included those who did not have established friendships, accounting for turnover of personnel. However, trust in the system has remained an issue, and one of the key activities of MBDS has been to host a series of meetings for those working in disease control in regional states, allowing epidemiologists to get to know each other in an effort to foster trust, and in doing so facilitate disease pertinent information exchange between them (Interview, Coordinator, MBDS, 5th March 2013).

Once this initial trust had been established, memorandums of understanding (MOU) were signed by the health ministers of the 6 countries in the region between 2001 and 2007 providing a legal framework to strengthen the normative dimension of this information sharing, allowing for greater exchange of information relating to disease outbreaks (Rockefeller Foundation 2010:14). This legalised framework has been important to the success of the initiative as all data comes from the health ministry, and this structure allows a free exchange of information between states (Interview, Associate Director, Rockefeller Foundation, 25th April 2013). This shift of normative sharing of information into a more formalised legal framework reflects the parallel normative and legislative changes to GDG. MBDS could be seen to represent a micro level example of the ideals of GDG. Thailand's (and in fact all states in the region) compliance with MBDS represents evidence of its internalisation the norms and legislation championed by the GDG framework and a move away from more traditional understandings of sovereignty to include disease control responsibilities to the wider world.

This regional framework for regional disease control has also helped to create an environment allowing GDG norms to be welcomed and accepted more readily. For example,

the fact that states were already open to sharing information informally through MBDS helped digital disease surveillance actors into the disease control landscape. Furthermore, the success of the MBDS network to date has been part of a wider move of Thailand to position itself as a regional disease governor. One of the overriding findings of the research has been the transformation of Thailand into a leader in regional initiatives for disease control, and that a key tension between Thailand's sovereignty and GDG has been in Thailand's desire to maintain a position of regional leadership. This shall be analysed in the next section.

5.7 Sovereignty as regionalism: Thailand's dynamic role in Southeast Asia

As has been alluded to, Thailand has developed a growing regional leadership role in disease control. Thailand has appeared to interpret its sovereign responsibility in supporting its regional neighbours in their endeavours to meet the normative and legislative requirements of GDG. In doing so, a hierarchical relationship for disease control has emerged in Southeast Asia, with Thailand at the apex of these regional efforts. Many countries in Southeast Asia view Thailand as a regional leader, using its processes as a model for surveillance systems (Ear 2012:48). As discussed previously, the 2003 SARS outbreak proved a global wake up call for the need to strengthen disease control and was instrumental in the development of received norms of GDG. This was particularly apparent in Southeast Asia and the outbreak has been credited with inspiring several regional based disease surveillance initiatives and programs (Kamradt Scott 2009).

As highlighted by Fidler, cooperation is easiest where countries share strong converging reciprocal interests in addressing such common threats (Fidler 2010). Such regional working has been referred to as the Asian Cooperation Dialogue (ACD) (ASEAN 2002), and it has been considered as the ultimate goal for the whole region for disease control as well as broader governance initiatives (ACD 2014). Amid this regional governance framework, Thailand has scaled up its activities to dominate activity and has played a critical role in disease control (MOPH 2009:60). For example, Thailand actively pushed other ASEAN (+3) members to understand that the region was increasingly interconnected in disease prevention (Curley and Thomas 2004). Furthermore, Thailand hosts regular meetings of ASEAN + 3 health mechanisms (ASEAN 2015), and considerably dominates the terms and

activity of Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS), ensuring that these follow Thai strategic objectives. As such, it could be deduced that Thailand's involvement in regional governance mechanisms have been in areas where the state has been able to assert its sovereignty and exercise a high degree of control in setting the agenda. Whilst other states in the region have shown strong convergence over the reciprocal interests of addressing the common threat of infectious disease (Fidler 2010) it can be argued that the ultimate motive for Thailand's involvement in regional initiatives is to allow further geostrategic ambitions (Panasponiprasit 2009:57). It might be that by analysing Thailand's regional role in disease control, it is possible to get greater insight into how that state understands its sovereignty and its relationship to global and regional disease governance mechanisms. This leadership can be seen in five different ways, each showing that Thailand prioritises this area of regional control, whilst doing so it is able to appear to be acting as a responsible sovereign should according to the norms of GDG.

Firstly, Thailand has invested heavily in the creation of an internationally acclaimed infectious disease surveillance training programme. In 1980 the MOPH in collaboration with the WHO and the US-CDC established the first FETP outside North America. This visionary move by the Thai government was aimed at enhancing human capacity for disease surveillance, response, investigation, and control in Thailand and neighbouring countries (WHO 2012: 25/6). This was created to ensure that Thai nationals were trained in epidemiology and a host of methodologies to combat any potential outbreak (thus limiting any national security or economic fallout of an emerging infectious disease). The introduction of this training scheme also offers a further example of Thailand's internal sovereign commitment to ensuring national health security.

Interestingly, since 2001 the FETP has included a considerable number of foreign nationals from the region in their training of this (Thai) public health curriculum. This means that public health professionals from neighbouring states have been taught to frame public health and disease control as Thailand understands them (i.e. in terms of national security and economic stability). Whilst Thailand may wish to share its understanding of disease in order to strengthen regional capacity for outbreak control and wishes to extol the goals of GDG, this domination of the type of knowledge relating to infectious disease control can also be linked back to Lake's theory of hierarchy (2007, 2009). The Thai state offers

education as part of its provision of social order to subordinate states and in return these states legitimate Thailand's dominance by implementing similar epidemiological practice, and framing of disease as a national security issue in their national health infrastructures. This further highlights Thailand's focus on their sovereignty as a regional leader.

Moreover, foreign alumni of the FETP remain in contact with the Thai MOPH and thus Thailand maintains direct communication with public health officials and scientific colleagues in regional health ministries, who can share information of outbreaks occurring in their own states on a regular basis (Interview, Senior Official, Ministry of Public Health, 1st April 2013). As seen in the case of MBDS (p183), considerably more information is shared through these informal discussions than is shared officially through WHO mechanisms. Due to the increasing number of international alumni of the FETP, this suggests that Thailand has an increasingly more networked position compared to other states in the region. This enables Thailand to have informal communication with a wider range of public health practitioners in other states, placing Thailand in an unrivalled position in terms of awareness of regional outbreaks, and such information accumulation allows Thailand to remain at the apex of regional disease governance activity and use any information collected to protect its domestic interests.

Secondly, not only does Thailand instigate considerable training of epidemiologists through the FETP, but it also maintains one of the best reference laboratories in the region, alongside those in Singapore, Japan and Malaysia (Interview, Epidemiologist, Ministry of Public Health, 20th March 2013). Through this reference laboratory (located in the MOPH), Thailand is able to rapidly type any pathogen found within its borders. This reference laboratory offers a further example of Thailand's commitment to the IHR (2005) which requires advanced laboratory capabilities. Furthermore, although under the IHR (2005) each state is supposed to have their own laboratory facilities, several neighbouring states have not been able to achieve this, and have tended to send their disease samples to Thailand for diagnostic testing. This has included Lao PDR, Cambodia and Myanmar (Interview, Senior Official, Ministry of Public Health, 1st April 2013). This once again highlights that Thailand are supporting their regional counterparts meet their responsibilities as part of GDG. However, this activity also coincides with the understanding of hierarchy that Lake (2009) puts forward, showing that a dominant state helps its subordinates meet international standards

of behaviour. These subordinate states are thus able to show the WHO that they are able to use regional reference laboratories to type their diseases, and thus they meet some compliance with this GDG legislative requirement, if not within their own territory.

Interestingly, in the wake of the Indonesian virus sharing controversy (Fidler 2008, Elbe 2010b), states in the region have chosen to send their virus samples to Thailand, rather than to a WHO, US-CDC, Institut Pasteur or Robert Koch laboratory, all of which have a presence in the region (Interview, Epidemiologist, Ministry of Public Health, 20th March 2013;; Interview, International Office Lead, Ministry of Public Health, 20th March 2013). Through such faculty, Thailand has furthered its position as the regional leader. Moreover, it suggests that states in the region understand a regional collective identity for disease control, at the top of which is Thailand. Lake (2007), Goh (2008) and Clark (2011) state that for hierarchical relationships to be created, it requires not just top down coercion by the lead state, but the complicity of the subordinate state (or states) to cede some of their sovereign decision making to the dominant state. Through the direction of virus sharing in the region (from other states to Thailand) this complicity by weaker states to recognise Thailand as a regional hierarch becomes apparent. Southeast Asian states are willing to accept a subordinate role to Thailand, and benefit from the scientific resources of Thailand to gather disease intelligence. As such, Thailand extends its sovereign control in both the areas of training public health professionals, and offering services which should fall to states to perform, such as laboratory capacities. These activities suggest that Thailand's sovereignty includes a role beyond their borders, to some extent, and it sees a responsibility to its regional counterparts to perform disease related activities when weaker states are unable to. This is obviously contradicts sovereignty understandings of non-intervention, and yet Thailand appears to be content to interpret its sovereignty entailing this regional role.

Moreover, this collective use of the reference laboratory creates an unusual power dynamic in the region. By undertaking the diagnostics, Thailand has unrivalled knowledge of its neighbour's viral status prior to official reporting, placing the state in a position to dominate the regional response to any outbreak, as well as protect its own national security interests. Equally important to this power relationship is the fact that if Thailand has identified a pathogen, it can put pressure on the reporting relationship between the affected state and the WHO ensuring that subordinate states meet their GDG responsibilities. There could be

instances where transparent reporting from other regional states is not forthcoming, and knowing that Thailand is aware of a potential disease outbreak may encourage the infected state to fulfil their obligations under the IHR (2005) (interview, Senior Official, Ministry of Public Health, 1st April 2013). This relationship highlights the coercion aspect of a hierarchical relationship, that through this power dynamic a dominant state maintains the authority or punish non-compliance with international standards of behaviour (Lake 2009), such as by 'naming and shaming' a state for its failure to live up to its normative and legislative expectations under GDG (Davies and Youde 2013).

Thirdly, Thailand's well-developed disease surveillance infrastructure functions beyond the borders of the state and is able to detect outbreaks occurring in other locations. As the materially and economic preponderant state in the region, Thailand enjoys a much more comprehensive disease surveillance programme than its neighbours both in terms of effective epidemiological training as well as material resources and technical capability. As a consequence a neighbouring state may not have detected an infection until it has reached the Thai border. This became apparent during the outbreak of H5N1 (2007) when the index case infected was not diagnosed in Lao PDR, but only when the family took the patient across the border to Nong Khai in northern Thailand for medical attention (Puthavathana et al 2009) (p.207).

Moreover, with the recent paradigm shift for collaborative working under the normative and legislative responsibilities of GDG, there are considerable numbers of Thai public health teams working on the other side of the Thai border in Myanmar undertaking disease surveillance and response activities (MOPH 2011, Interview, Border Health Coordinator, WHO, 23rd April 2013). Furthermore, there are increasing joint investigations between SRRTs from Thailand and their counterparts in Lao PDR and Cambodia (Interview, Senior Official, Ministry of Public Health, 1st April 2013; Interview, Senior Official, Ministry of Health, Cambodia, 17th April 2013; Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). Through these activities and vast disparities in resources for disease surveillance, Thailand is able to ascertain the prevalence of an outbreak occurring beyond its borders in the state where it started, and before a subordinate state has detected it. This further represents the development of a hierarchical relationship where states are willing to cede or share some of their bundle of sovereign duties in disease control to Thailand, as they

recognise that considerable benefit can be achieved from doing so (Clark 2011, Goh 2008). This includes improved disease surveillance in their border areas where their own capacities may be limited. This may appear as expected of Thailand, acting as a responsible sovereign state, and showing its complicity with the ideals of cooperation in GDG, supporting other states meet their surveillance obligations. However, in another analysis, Thai sovereignty may take priority. Thailand might support its neighbouring states through training, offering reference laboratory facilities and surveillance capabilities beyond their borders in an effort to further its own national security in ensuring that it is aware of any pathogen's presence occurring within the region. This would allow Thailand forewarning to take any steps it deems necessary to protect its state, population and their economy. This does present as a bit of an anomaly for Thailand's approach to disease control, it is content to work beyond its borders and have a leading role regionally, yet at the same time, it is unwilling to offer health provision to migrants within its borders. This suggests an unusual tension between the domestic and international levels of their activity in disease control, as Thailand appears to prioritise its international activity over protecting those within its borders, challenging their focus on their internal sovereign role.

Fourthly, Thailand is able to dominate the regional discourse of disease control as one of the only states in Southeast Asia engaged in South-South regional development cooperation. Thailand has developed the International Partnership for Development Programme which supports new initiatives to enhance South-South cooperation within the region and beyond in areas of health and disease prevention (WHO 2012b :31). This has included HIV/AIDS prevention, participation in international public health networks, providing expert referral services (e.g. laboratory services), building influenza diagnostic capacity in Myanmar and sharing knowledge and experience of management of a host of infectious diseases including H1N1 with Maldives, Nepal and Sri Lanka (WHO 2012b: 46). Once again, through this south-south development cooperation, Thailand is able to dominate the frame of reference, types of epidemiological practice and methods for capacity building of capacity in health and disease control in the states to whom it offers assistance, yet at the same time appear to be acting as it should be as part of the GDG framework. This follows from Lake's (2009) argument that a dominant state will provide social order to its subordinates. Accordingly, the knowledge and approach to public health will be carried across to the recipient state.

Furthermore, Thai development officials are based in the health ministries of these countries in order to implement the development programmes. Consequentially, as with the FETP graduates, Thailand will have further insight into any outbreaks which might be occurring within its borders ensuring continued national security protection from the threat of disease. In particular, the two overarching initiatives that Thai health policy promotes through its health development agenda are: addressing the least developed countries needs in health provision, and ensuring access for developing countries to modern technology (MOPH 2009:60). As any regional surveillance mechanism is only as good as its weakest link, improved surveillance protocols elsewhere in the region will directly improve the health security of the region and of Thailand. Further, by improving access to digital technology, a state would be able to share disease pertinent information in real time online, doing so through regional mechanisms for disease control, such as through MBDS, or other digital disease surveillance systems. Thus, Thailand would be able to obtain disease relevant information even more promptly, ensuring continued health security and a focus on its internal priorities, whilst simultaneously have the appearance of acting as a responsible sovereign according to the GDG agenda.

Finally, Thailand has been able to position itself in a dominant role in the decision making of a number of regional non-state actors involved in disease control. This has been helped by the physical location of Thailand and its development in comparison with states in the region. Thailand is (relatively) central geographically to Southeast Asia, as well as offering excellent transport connections and a regional travel hub. Accordingly, a number of non-state organisations involved in Southeast Asian disease control have located their headquarters in Bangkok. This has included Rockefeller Foundation, USAID's Regional Mission and World Bank. More interesting still, the office of MBDS, the regional office of the US-CDC and the WHO are located physically within Thailand's Ministry of Public Health buildings in Nonthaburi, on the outskirts of Bangkok. This means that Thailand is, to some extent, able to help to carve the agenda of these organisations as they have predominately Thai nationals working for them who will have been trained in the Thai public health approach and as such can influence the direction of regional aid from these external actors. It is able to dominate the theoretical underpinnings of these regional networks, including influencing which diseases to focus on, and which epidemiological practices and principles

should be assumed. As Lake (2009) insinuates, the dominant state is able to reflect its interest in activities of subordinate states and its relationship with third, external parties. Moreover, Thailand will be able to get first-hand information about any disease outbreaks which are sent to these organisations (especially US-CDC and WHO) as it has a network of cooperative staff working in these bodies ensuring continued health security.

As can be seen, Thailand's involvement in regional surveillance mechanisms has been in areas where the state has had a high degree of control and discretion in setting the rules of engagement and is doing so for self-interested reasons of regional power (Lee et al 2013:5). These five points have helped to nuance Thailand's interpretation of sovereignty in disease control, in that not only is its domestic priority to protect its economy from the threat posed from diseases entering its borders, but Thailand also has a regional role for disease control. Its sovereign decision-making and responsibility has transformed the state beyond its borders, and Thailand recognises its growing role in regional disease governance. However, although such action emphasises its support of GDG, it also welcomes the direct benefits for Thailand including enjoying this privileged position to protect their security. However, this is not the only manifestation of sovereignty that can be witnessed. As the next section will show, Thailand also remains protective of its sovereignty.

5.8 Sovereignty Asserted

The above section has highlighted Thailand's transformation to become a 'would-be' regional disease governor. In doing so, Thailand has emphasised its commitment to several of the norms of GDG, including those of ensuring global health security, the need for greater transparency and increased reporting of potential health concerns. Thailand has also shown its efforts to meet IHR (2005) compliance, not only within its own territory, but in supporting other states in the region to meet these too. From such analysis, it appears that Thailand has prioritised GDG over its own sovereignty. However, this is not what can be seen on a more in depth analysis of Thailand's activities. In fact, Thailand do prioritise its own domestic issues, particularly that of its economic future and stability over GDG. Three areas where Thailand has sought to reassert its sovereignty at the global level include concerns of mistrust, Thai traditional medicine and their global role.

Despite a high level of apparent political commitment to tackling communicable disease at a regional level, and considerable technical initiatives, mistrust pervades contemporary Asian diplomatic relations (Kamradt and Yoon 2013:110). Consequently a state centric approach to disease control prevails in Thailand. Trust appears so weak in some Asian states that Lee et al (2013: 10) suggest the core function of regional Organisations can be seen as maintaining stability rather than fulfilling broader governance needs, such as regional disease governance. Trust represented a persistent comment amongst interviews for this research (Interview, Senior Official, Ministry of Public Health, 1st April 2013; Interview, Senior Official, Ministry of Health, Cambodia, 17th April 2013; ; Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013; Interview, Consultant, ADB, 8th April 2013). Interestingly enough, however, concerns relating to trust did not come from Thai officials concerned about the honesty of their regional counterparts, but the other way around. It was suggested that there were considerable differences between the culture of information sharing between Thailand and its neighbours. This suggests that Thailand may not have internalised the GDG norm of transparency in disease control, despite its efforts in other areas of GDG and moves for regional governance, favouring their sovereign decision making about when and how to report diseases

A second manner in which Thailand choses to assert its sovereignty over regional or GDG is through its inclusion of Thai traditional medicine in disease control, and the importance of engaging with local traditions and customs. Thai nationals, most notably in rural areas, often use traditional medicine when first experiencing symptoms of illness; meaning health officials may be unaware of the initial outbreak until it spreads to another location (Ear 2012:54). Moreover, in an effort to preserve this historical method of health provision, Thailand has enshrined this practice in law under the Promotion of the Thai Traditional Medicine Intelligence Act (1999). This has protected not only the practices for treatment of those who seek such alternative therapy, but also their methods of disease surveillance. The concept of disease surveillance as understood in the GDG framework (p.29) is based on the work of Alexander Langmuir at US-CDC (1963) and then expanded to include the WHA's (2005) definition. Although a full analysis of the role of Thai traditional medicine methodology for disease surveillance is beyond the scope of this study, it is clear that such surveillance is not carried out using the same epidemiological protocols. Yet, data collected

by Thai traditional medicine practitioners is compiled into the 506 report for domestic disease surveillance (p.167), which is available to other states to view disease trends in Thailand. However, the difference in methodology for data collection may make this data incompatible with other data sets globally. In allowing data from Thai traditional medicine sources to be included in their systematic surveillance, Thailand can be seen to be asserting its sovereignty, prioritising its own procedures even if this means it is not compatible with the norms of GDG.

Finally, although transforming itself into a regional actor, Thailand is constrained by global actors. As Prys (2012:3) highlights, regional powers have to operate within an overarching international system determined by the global distribution of power and by international institutions. In disease control these include compliance with the IHR (2005) and internalising the norms of GDG. Yet, Thailand appears to move away from this globalised approach. Whilst there has been a global shift towards a new health governance landscape (as highlighted in chapter 2), Thailand has challenged the global rhetoric and thus has undermined health outcomes by contravening GDG norms and pushing for greater national policy space (Lee et al 2013:3). This can be perceived as a new willingness on behalf of some Asian countries to challenge the status quo around existing health governance arrangements, what Gostin has previously described as

‘the entrenched power structure of global health governance where by economically and politically powerful countries principally in Europe and North America have had a disproportionate influence on the global health agenda’ (Gostin 2005).

This has included Thailand’s decision to issue compulsory licenses for antiretroviral medications (Ford et al 2007), as well as to favour informal reporting mechanisms and regional activity between its neighbouring states rather than engaging with GDG protocols and norms and enshrined by the IHR(2005). By focusing much of their attention on ensuring their regional leadership role for disease control, Thailand is in fact challenging the overarching system of GDG. The GDG agenda does not seek to create regional disease governance mechanisms, as a key understanding is that the threat posed by disease is global, not only regional. However, Thailand’s championing of regional efforts may be a further example of the state asserting its sovereignty above that of the norms of GDG. The

aforementioned examples have clearly shown that despite global and regional initiatives and shifting global norms reflecting shared expectations around how a responsible actor should behave in the GDG landscape, this normative understanding has not necessarily been sufficient to induce Thailand to change its behaviour in disease control. Powerful countervailing sovereign interests will likely continue to override any perceived obligations the state might feel to the global community through the rhetoric of GDG (Hoffman 2010:514). However, an alternative reading of this regional role is that the norms of GDG are in the process of being localised (Acharya 2004). This allows norm takers to build congruence between transnational norms, such as GDG, and local established practices, such as regional collaboration. Haake (2003) shows that states in the region are unlikely to adopt foreign norms wholesale, and are likely to develop them alongside localised ideas such as the ASEAN-way.

5.9 Conclusion

This chapter began by considering the background and composition of the political and health systems in Thailand. In doing so, it showed that a key concern of those who manage disease control within Thailand is protecting and prioritising the economy. It highlighted the framing of disease by Thai policy as that of a national security threat, despite its continued language inferring a greater human security approach. However, through the two case studies of outbreaks that followed, those of SARS and H5N1, it became clear that Thailand understands the threat posed to the state by infectious disease is to its economic stability, rather than purely as a health issue.

Following on, this chapter analysed the domestic infrastructure in Thailand managing outbreaks of infectious disease. Though scrutiny of the 506 disease reporting system, and the work of the VHV and SRRTs, it is clear that Thailand has one of the most comprehensive surveillance systems in the region, and appears able to detect and respond in a timely manner to any emerging health threats, in line with its obligations to GDG and as a sovereign protecting its population from disease. Interestingly, however, Thailand desires to prioritise its surveillance activities in border regions. This chapter has shown that Thailand has developed an understanding of disease threats being exogenous to their territory, and that the preferred method for stopping any such threats is through greater PoE controls,

despite the flawed public health understanding. The framing of disease in this way reasserted Thailand's understanding of a national security framing of disease, which juxtaposes the global health security framing of the GDG regime.

Whilst Thailand appears compliant with the IHR (2005) and norms of GDG on paper this chapter has shown that Thailand prefers to do things its own way. For example, despite a number of formal reporting channels, Thailand has continued to use informal reporting between colleagues in other states, rather than sharing data globally. As part of this, this section discussed the creation of the MBDS network, which can be seen to be a microcosm of the ideals of GDG, through shared working and mutual responsibilities at a sub-regional level. Thailand was key in the development of this system and has shown the global community that it has enshrined many of the norms of global cooperation on disease. However, anecdotally, this system does not function as well as it could, due to mistrust between the actors involved, highlighting the endurance of sovereignty in Southeast Asia.

The second half of this chapter examined Thailand's dynamic regional role in Southeast Asia. It showed, through an analysis of five areas, their FETP programme, work of their reference laboratory, south-south cooperation, extending their surveillance beyond their borders, and physical location, that Thailand understands itself as a regional leader for disease governance. By taking Lake (2009)'s concept of hierarchy, it was shown that Thailand helps its subordinate states meet international standards of behaviour, as well as legitimates its own role through similar working practices. However, it does so in an effort to reflect its own internal sovereign interests of detecting outbreaks occurring in the region and to limit the impact of any outbreak on its national security and economic stability.

Finally, this chapter sought to show areas where Thailand is rejecting the norms of GDG, prioritising sovereignty. Through concerns over mistrust in the region, the continuing role of Thai traditional medicine and their willingness to challenge the status quo around some of the GDG principles, Thailand can be seen to have emphasised its sovereignty as a right, rather than sovereignty as a responsibility to the wider global community. As Davies (2012: 600) highlights that Thailand in particular is often seen to be more protective of its sovereignty than others in the region. Beyond the examples discussed above, Thai sovereignty in disease control is apparent in the considerable domestic political engagement

in disease governance, in contrast to many Western countries (Kamradt Scott and Yoon 2013:104).

Whilst Thailand does comply with some of the norms of GDG, this activity can be attributed to their desire to protect its own economy and security. This can be seen in its prioritisation of ILI and the poultry trade. However, despite these being similar areas of concern to the UK case study (p.145) this does not mean Thailand always follows similar policy lines, or for the same purposes. Thailand maintains those areas of sovereign responsibility for GDG where it suits them, and at other times rejects them. Thailand's creation of a regional role for itself represents a rejection of the norms of GDG, in favour of regional activity. The championing of a regional response rather than focusing on the global level may be an act of defiance against norms of GDG, and an assertion of Thailand's sovereignty, or it may represent that the norms of GDG are in the process of being localised (Acharya 2004). The norms are being localised at the regional level to complement the framings of ASEAN and other regional groupings for disease control in the first instance, and may in future become internalised further at the national level.

To return to the central research question, the case of Thailand has shown a different understanding of surveillance and sovereignty to the UK, and thus can add greater insight into the tension between sovereignty and GDG. Thailand, for the most part, has a functioning disease surveillance system offering a strong internal sovereign presence for its citizens. However, this internal sovereignty is not as strong as it could be as the state focuses activities on border areas, seeing migrants as a threat to its health security, rather than incorporating these groups into their routine surveillance practices. This national security approach to disease does leave its population vulnerable, and therefore Thailand may not provide its strengthened internal sovereign role to its citizens. Externally, a strong sovereign is manifested challenging GDG. Although Thailand has internalised some of the norms of GDG and has met most of the requirements of the IHR (2005), it has also challenged GDG in a number of ways, most notably through its focus on regional activity for disease control, rather than GDG. Thailand has become more preoccupied with its sovereign role at the apex of a regional disease governance unit, rather than complying uniformly with GDG. It understands that being at the centre of this grouping will increase its national and economic security to a greater extent than 100% compliance with GDG. As such the

Thailand case study shows a further interpretation of sovereignty. Although the internal and external faces of the concept are very much apparent, confirming the use of this framework for understanding sovereignty, a different interpretation of both of these faces is seen. This suggests that sovereignty is not a constant, but context specific, and that sovereignty means something different to UK than it does to Thailand, yet both of these interpretations of sovereignty are able to challenge GDG.

In comparison with the other two case studies, those of the UK and Lao PDR, Thailand interprets its sovereignty and sovereign responsibilities differently, with considerably more challenges to GDG from sovereignty. The variety of these manifestations of sovereignty will be analysed in the conclusion to show the socially constructed nature of the concept, and the context specific tensions it plays against GDG. The following chapter examines disease control and sovereignty in Lao PDR. Unlike Thailand and the UK, Lao PDR appears the most willing to cede elements of its sovereignty to the GDG framework. However, this does not mean that Lao PDR has 'less' sovereignty than the two other states, rather Lao PDR understands sovereignty in a different way.

Chapter Six: Lao People's Democratic Republic (Lao PDR): Sovereignty as Survival

6.1 Introduction

The UK and Thailand highlighted the sovereign response to GDG in a high-income and middle-income state. However, the international community have raised concerns about the ability of low-income states to cope with pandemics (Oshitani et al 2008). In particular the emerging infectious disease rhetoric has highlighted Southeast Asia to be of particular concern. Accordingly, it could be posited that Lao PDR, as a low income country in Southeast Asia, represents a high priority area for developing disease control capacity regionally and globally (Howe 2013, WHO 2009). Interestingly, although there is increasing public health literature published about Lao PDR's disease burden in the wake of outbreaks of SARS and H5N1 in recent years (notably by the two large regional research centres of the Communicable Disease Policy Research Group, Bangkok, and Oxford University's Clinical Research Unit, Ho Chi Minh City) wider analysis of the state's policies or role in the GDG landscape is missing. This chapter contributes to global health literature by analysing the role of the state of Lao PDR in GDG, and showing how its role contrasts with that of other actors working within the disease governance landscape within its borders.

This chapter analyses the surveillance and response structures for infectious disease in Lao PDR and details a third interpretation of sovereignty and sovereign responsibility in relation to the norms of GDG. As has been shown in the previous two cases, UK and Thailand exhibit their sovereignty in a similar fashion, engaging with the norms and legislation of GDG when it is of interest to them, and yet they both eschew these norms when they challenge other domestic responsibilities, though the manner in which this manifests is different. Sovereignty and sovereign responsibility can be seen as dynamic concepts, and states will act in different ways to GDG depending on their own domestic priorities and concerns. Lao PDR provides further evidence of the socially constructed and flexible understanding of sovereignty in disease control. This chapter shows that Lao PDR appears to be the most compliant of the three states examined with the GDG agenda. Its engagement with the norms and legislative requirements of GDG suggests that Lao PDR does prioritise these global norms over its own sovereignty, and even represented the perfect case study for the

WHO Western Pacific Regional Office (WPRO) assessment of successful move towards IHR (2005) implementation in 2012.

However, all is not as it seems. Lao PDR may play the game of globalised transparency, reporting and compliance, but closer analysis shows this is not in an effort to improve the health security of its own population, nor is it a real commitment to the desire for a truly globalised disease governance regime. Rather it seeks to appear as a responsible sovereign state on the global stage, so as to continue to attract donor dollars for further national development. This will be seen through distinct differences between their internal and external sovereign faces.

As Philpott highlights (p.88), the concept of sovereignty is by its nature Janus-faced (in Jackson 1999:103). Lao PDR is currently struggling to reconcile the domestic inward looking sovereign duties from that of its external standing in the international system. Internally, the role of each sovereign state is to provide (health) security to its citizens, and this would include limiting the impact of an infectious disease spreading within its borders. However, Lao PDR is unable (or rather unwilling) to provide even basic healthcare for its citizens, leaving its population exposed to a host of diseases. This is in part due to a fledgling economy, aid dependency and its status as a low income state (World Bank 2015c). However part of the blame can be apportioned to chronic governance failings in a one party authoritarian state, and a lack of political will to implement changes as universal health coverage.

From an external sovereignty perspective another side of Lao PDR is seen. The government has actively presented the image of a responsible sovereign state. Through active participation in global and regional institutions for disease control, as well as evidenced transparency and quick reporting of outbreaks under IHR (2005) Lao PDR has shown itself as a responsible actor in the GDG framework. This in turn has attracted considerable donor dollars from a range of bilateral and multilateral actors to improve disease surveillance. These two competing sides of Lao PDR's sovereignty produce a strange dichotomy which will be analysed, concluding that sovereignty for Lao PDR, in disease control concerns itself with sovereign (and one party state) survival. In this interpretation of sovereignty, the state appears to relinquish only as much of their sovereign responsibility for surveillance and

response as necessary to receive further investment from the international community in order for the state to develop. Whether these funds end up in the health system is up for debate. Nevertheless, the domestic priorities that were shown in the UK and Thailand towards their citizens, or their economies are not evident in this case study. In fact, there appears to be somewhat limited evidence that Lao PDR considers its own citizens in the realm of disease control, yet simultaneously manages to appear to be a responsible state on the global stage. Accordingly, this is a third example of the malleable and changing interpretation of sovereignty helps to demonstrate that sovereignty is not a standalone concept, but that it is dependent on context.

This chapter starts with an introduction to the state of Lao PDR, and its health system (or lack thereof). As part of this contextual understanding, it highlights recent outbreaks that Lao PDR has experienced those of recurrent H5N1, which spurred the international interest in ensuring strengthened disease surveillance and response within the state. It develops to understand how Lao PDR has embraced the normative and legislative understandings of GDG since H5N1, by examining how it has implemented a range of developments in infrastructure for disease control. This has ranged from grass roots initiatives of village health volunteers all the way up to the involvement of the Prime Minister. In this section, the role of other normative initiatives such as digital disease surveillance will be analysed highlighting how Lao PDR is engaging with globalised efforts for real-time detection of outbreaks. It also considers to what extent Lao PDR has met its core competencies under the IHR (2005) and in doing so shown a concerted effort to meet international standards for disease control, as a responsible sovereign actor.

The second half of this chapter analyses how Lao PDR has engaged with further normative aspects of the GDG agenda. It examines how it has engaged with a range of other actors, including the WHO, NGOs and other states to demonstrate collective action for greater surveillance and transparency of outbreaks (see chapter 2). It shows that Lao PDR has internalised such norms, promoting itself as a transparent and responsible sovereign in disease control. However, this analysis also shows instances when Lao PDR's sovereignty does challenge these globalised efforts, mostly when its one party authoritarian rule may be under scrutiny. The involvement of Lao PDR in ASEAN will exemplify this, as it is shown that the state exhibits responsible sovereignty in order to receive the benefits of collective

action, such as increased funding, but it only does so when its choice of domestic political structure is not questioned. This chapter concludes by extending this argument to show that this one party authoritarian state is not actually the responsible sovereign it hopes to appear. If Lao PDR was really committed to improved disease control and to the principles of GDG, then it would make a greater effort to offer primary health care to its citizens, and through this improve disease control.

6.2 Background to Lao PDR

In order to understand how Lao PDR understands its position in the GDG mosaic, and to understand what domestic issues it may be contending with, it is important to contextualise Lao PDR's political and public health provisions. Lao PDR, one of the last remaining communist states, has been woefully neglected in Western studies of IR to date (Hey 2003: 11). It is somewhat of a political anachronism in that it is still ruled by the same communist insurgents who came to power in 1976 (Abuza2003:157). These insurgents and their successors now make up the Government of Lao PDR operating under the guidance of the People's Revolutionary Party (LPRP), and is now best seen as an authoritarian one party state in which the Party presides over a relatively free market economy (Stuart-Fox 2009). As per the Constitution (1991), the National Assembly is the highest organ of the State, vested with representative, legislative and oversight functions although there remains little difference between LPRP policy and Lao PDR policy. In fact, the politburo of the LPRP formulates policy making in virtually every aspect of public life (Guo 2006:24). The LPRP permeates and controls the key institutions in the country; the government, bureaucracy, mass organisations and the state. All policy is decided by the party, and the government merely acts as its executive arm. Unsurprisingly, according to Stuart-Fox (2009) policy is decided in the interests of the Party, rather than the nation, society or economy. This will also be seen in the case of disease control policy.

Nevertheless, it is impossible to separate economics from politics in Lao PDR (Stuart-Fox 2009). From the mid-eighties, and through Asian Financial Crisis of 1997 when the Lao Kip devalued by 900%, Lao PDR has suffered from an on-going economic crisis, which is inevitably having long lasting political repercussions, and ramifications on resources for domestic and international disease control. Lao PDR ranked 139 out of 187 nations on the

United Nations Development Programme (UNDP) Human Development Index in 2014 which was the lowest ranking of any East Asian state (UNDP 2014). The impact of this weak development infrastructure, is that it is estimated that 33% of the population live on or under \$1.25 per day (Howe 2013), with a considerable number of the population living in rural settings where a high burden of infectious disease occurs (de Sa et al 2010). The combination of these two factors has the outcome that the main cause of mortality and morbidity in Lao PDR is infectious disease (WHO 2014d).

Although there may be external causes that contribute to the spread of disease, such as geographical elements like climate and floods, the main factor in the spread of infectious disease can be linked to socio-economic weaknesses due to the failing governance arrangements (Link and Phelan 1995, Binder et al 1999). As will be shown, the one party political system has made poor economic and governance decisions over the last three decades with the party remaining mostly concerned with maintaining its monopoly of political power, rather than improved living conditions for citizens (St John 2006, Stuart-Fox 2009). This economic and governance failing can be seen in disease governance but also more broadly in terms of broader health indicators. Lao PDR's health status remains one of the lowest in the WHO Western Pacific Region (WHO 2014d: 1) with a life expectancy of only 67 and high child mortality (72/1000 children die before their 5th birthday) (World Bank 2015c). These stretched health indicators are due, in part to the fact that only 2% of total government expenditure is spent on health provision (WHO 2013)⁵¹.

At the core of these economic and governance issues, Lao PDR has been undergoing momentous social and economic transformation since the introduction of market-based economic reforms in 1986, dubbed the New Economic Mechanism (WHO 2011b: 1). Such economic liberalization opened up the state to considerable foreign investment (Abuza 2003: 159), notably including provisions for the development of health services. For example, \$14.5 of total of \$19.5 per capita health spending is currently funded by donor governments and agencies (De Sa et al 2010)⁵². However, the consequential increase in tourism in Lao PDR owing to these market reforms has also brought with it considerable health risks, such as the threat of infectious disease. For example, SARS and H5N1 emerging

⁵¹ This is compared to Thailand who spends 4.6% GDP on healthcare, and UK who spend 9.1%.

⁵² See p 225 of this chapter for further analysis of this foreign government investment in health.

in the region have increasingly posed a significant risk to Lao PDR's political and economic stability. (Pholsena and Banomyong 2006:135, De Sa et al 2010, Lai, Kamradt-Scott and Coker in Lee Pang Tan 2013).

Globalisation and increasing regional integration has amplified threats to health in Lao PDR (Ministry of Health, Lao PDR (MoH) 2011:2). Situated between China, Myanmar, Thailand and Viet Nam, Lao PDR faces major challenges as the country opens up to external influence. In recent years it has been transformed into major transport hub, with considerable investment in bridges, road, trains as well as improving access for travel along the Mekong river (Fujimura and Edmonds 2006). This allows for a greater volume of potential pathogens to be transported across the state. This is a relatively new threat posed to Lao PDR, as since independence in 1953, it had only operated trade links with China, the Soviet Union and Vietnam (Abuza 2003). The opening up of markets under the New Economic Mechanism increased the international partners with which they would establish trade connections, increasing the threat of infectious disease. For example, despite its traditionally low rates, since the opening up of economic borders in Lao PDR, the prevalence of HIV/AIDS has increased (WHO 2011c: 163). HIV/AIDS prevalence has soared due to increased trade, notably with China and Thailand, which have higher incidence of the virus (Wu, Rou and Cui 2004, Phoolcharoen 1998), the easing of migration formalities (WHO 2011c: 163), increased foreign investment as international companies recognise the potential of Lao PDR as a resource rich country with in minerals and hydro-power (Ishi 2010: 110), as well as the considerable illegal trade taking place through logging and illegal meat markets and the associated prostitution industry (Howe 2013, Lyttleton 1999, Gysels et al 2001).

The LPRP and Government claim that public health plays a most important role and is a necessary factor for the implementation of all political duties of the LPRP (MoH 2013). Yet, despite such claims, there is a persistent gap between policy and practice and it is often observed in Lao PDR that policy as it appears on paper bears little resemblance to implementation on the ground, committees are formed but never meet, funds are established but have no money, fines are levied but not enforced (High and Petit 2013). Health is no exception. There may be considerable national policies and committees addressing how to improve health provision within the state, such as for universal health

care, but policies are rarely implemented. Interestingly, the National Assembly, the unicameral parliament of Lao PDR has no committee examining health and only one legislative document relating to health provision (National Assembly 2015).

The state has been conscious of its sovereign role in the realm of healthcare since independence in 1956 and has maintained an almost exclusive control of health provision. As with other areas of government policy within Lao PDR, the state has maintained tight control of all policy decisions and implementation of health activity to date, despite this having a negative public health effect due to the aforementioned economic and governance issues (p.203). Thus Lao PDR becomes an interesting case study for analysis of its sovereign perception of disease surveillance and reporting as it simultaneously wishes to maintain control of all health activities (and the actions of foreign actors) but simultaneously is unable to build the infrastructure needed to act truly independently. This tension that Lao PDR finds itself in poses the underlying theme for this chapter as its two interpretations of its own domestic and international sovereign responsibility are in direct opposition to each other.

The health system in Lao PDR is structured with central government allocating responsibility for the majority of health issues to provinces, which then in turn delegate down to the district level. Such a system has suffered through scarce and poorly distributed financial resources in the provincial and district health service. Moreover, widespread corruption limits the trickle down of whatever limited funds are ring fenced for health (De Sa et al. 2010). Further weaknesses in this decentralised system exist, including poor quality of services and the capacity of health workers is low (Calain 2007). These disparities have arrived through the lack of basic infrastructure and financial resources to provide primary health services from the LPRP and Government (WHO 2011b, Lai, Kamradt-Scott and Coker 2013). A secondary area of concern is that there is a low utilization of health services, especially in rural areas. This can be attributed to poor geographical access to health facilities with only 8% of villages having their own health centre (WHO 2011b:15). Accordingly, a premise for the forthcoming of analysis of the disease governance landscape in Lao PDR is that the state is unable to provide even the most basic of primary health care to its citizens, and therefore the impact of a disease outbreak in Lao PDR is likely to be substantial (de Sa et al 2010, Murray et al 2006).

The national health priorities of Lao PDR are articulated in three principal documents; the 20-year Health Strategy to the Year 2020 (2000); the Lao Health Master Planning Study (2002); and the National Growth and Poverty Eradication Strategy (2004). These outline the activities that the state is currently undertaking in the realm of health provision. Strikingly health strategies such as these which focus on targeting funds towards improved healthcare were the first of their kind within Lao PDR at the start of this millennium (WHO 2012e: 2). Prior to this, health provision was considered low priority to Lao PDR authorities. It could be suggested that movements to improve healthcare have been as a consequence to reactions by the global community, both in relation to the impetus placed on achieving the Millennium Development Goals and the post-2015 agenda, but similarly by the renewed focus by the global community in the post-SARS world with the increased scrutiny of Southeast Asia as a potential hot-bed for infectious disease (Coker et al 2006). This highlights the importance Lao PDR places on being seen to be responsible in the eyes of the global health community, making efforts to reach certain agreed standards of health provision, despite competing domestic interests. The potential for a causal link between the global pressure to act and the state's actions reinforces the suggestion that Lao PDR takes its responsibilities to the GDG seriously. However, before such responsibilities can be explored, it is important to understand the disease threats that Lao DPR faces, so as to understand why and how Lao PDR may interact with the GDG landscape.

6.3 Outbreaks

As this thesis seeks to question sovereignty in the role of infectious disease control, it is useful to illustrate recent outbreaks that Lao PDR has been subject to. This explains its prioritisation of certain disease concerns, and may help to understand the interpretation of sovereignty that will be shown in this chapter. Infectious disease remains the greatest cause of morbidity and mortality in Lao PDR. The diseases that pose the greatest burden are acute diarrhoea, dengue fever, acute respiratory infections, parasitic diseases, regular outbreaks of cholera, as well as other vaccine-preventable diseases. These infectious diseases are closely linked to the endemic poverty, poor sanitation, limited water supply, malnutrition, sub-standard food safety and limited access to health facilities in rural areas, which accounts for a considerable percentage of the population (WHO: 2012e:2). Nevertheless, these

remain a continual threat to the state in terms of economic burden on a weak economy (UNDP 2013: 132; WHO 2011b:6)

However, it is not these endemic disease outbreaks which concern the GDG agenda. The disease which has spurred greater investment into disease surveillance and control in the country is avian influenza. This is a first step in understanding the tensions between state and global governance of outbreaks. Although avian influenza may not represent the greatest burden of disease within Lao PDR's borders, it is this that international actors prioritise through their interventions, at the cost of endemic disease control. Data on influenza had not been regularly reported internationally prior to 2003, presumably due to the lack of infrastructure to detect (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013) and report any outbreaks within the state, a lack of international interest in respiratory disease in the region prior to SARS. Nevertheless, since then Lao PDR has experienced 9 outbreaks of H5N1 in poultry. In 2003 Lao PDR experienced several recurrent avian influenza outbreaks in domestic poultry and furthermore registered two human cases. These outbreaks focused political and media attention on the limited capacity of Lao PDR to detect and respond such threats. Accordingly, H5N1, along with SARS in the region, led to new contributions from global donors who feared weak infrastructure in such a poorly developed state may have wider international ramifications (Vongphrachanh et al 2010). This began Lao PDR's involvement in the GDG landscape as the state's weak health infrastructure was considered a threat to global health security.

In 2007, Lao PDR suffered a further outbreak of avian influenza with international reach. Initially this outbreak was only reported in poultry (de Sa et al 2010). Strengthened control activities were implemented to target poultry farms and human passive surveillance was reinforced, but despite such efforts, two human cases of H5N1 were confirmed (WHO 2011c: 164). Interestingly the detection of these human infections only occurred when the patients had travelled across the border to Nong Khai, Thailand to seek medical attention. Such an act highlights two key concerns with disease control in Lao PDR. Firstly, as discussed, there is a lack of effective or good quality primary health facilities within the state, so those who are able to afford to often travel internationally to seek medical care. Secondly, the fact that this outbreak was only detected once the patients had travelled internationally reveals that routine disease control methods and their accompanying

bureaucratic structures were completely inadequate in dealing with an unprecedented, or even expected public health concerns (Menon and Goh 2005, Ansell et al 2010). The inability of Lao PDR to detect such an outbreak has had a direct influence on the increased role for global actors in disease surveillance for these types of avian and pandemic potential influenza within Lao PDR, as part of the GDG agenda.

As stated by global health security literature, any surveillance system is only as good as its weakest link (Davies 2010, Youde 2012). This has caused increasing concern about Lao PDR in the GDG mosaic. This has led to increased involvement of a range of actors in disease control strengthening surveillance and response facilities and helping to internalise the normative understandings of what the state should be doing in order to counteract disease. Consequently there have been considerable efforts nationally and internationally to improve disease surveillance in Lao PDR, as shall be shown in the next section of this chapter, in order to ensure global health security. However, since 2007, there have been no notable major outbreaks in Lao PDR. In 2009, when WHO Headquarters declared H1N1 to be a pandemic, the country prepared itself, with a focus on enhanced surveillance systems and risk communication. Despite this concern of the spread of this disease, H1N1 did not reach Lao PDR, but it proved a useful trial run for the newly improved surveillance infrastructure. (WHO 2011c: 165). The next section of this chapter analyses the newly improved surveillance infrastructure, by examining both domestic changes within Lao PDR disease control efforts in policy and practise which show how Lao PDR has embraced the ideals of GDG at a cost of some portion of their sovereignty.

6.4 Domestic Surveillance

This section shows the governance mechanisms that have been established domestically to detect and respond to such disease threats. The development of an effective disease surveillance system in Lao PDR has only materialised in the last decade. As recently as 2006, Lao PDR had no national plan available for pandemic preparedness (De Sa et al 2010). Prior to this disease alertness was created using disease burden data, obtained from minimal reporting from healthcare facilities, but also data provided by WHO and surrounding states such as Thailand (Vongphrachanh et al et al 2010). Subsequently, national plans for surveillance were established, and their naissance in part can be attributed to the changes

in normative and legislative understandings in GDG requiring all states to have a functioning surveillance infrastructure. Moreover, Lao PDR's surveillance system has also been strengthened with support from international and global actors, due to these same shifting understandings of the need for effective surveillance in the region in particular (Coker et al 2006).

Similar to the other states in this thesis, Lao PDR understands the potential security threat posed by disease, linking health to war, peace, social stability and security. The *7th Five Year Health Sector Development Plan* (MoH 2011:2) states that '*Health is the Endeavour for the Government, the whole state and the whole people*'. As part of this endeavour, a new constitutional article was introduced in 2004, obligating the Government to extend the national health network and notably to improve disease control (WHO 2011c: 167). This new constitutional article included increasing financial provisions for primary healthcare facilities as it was deemed that '*investment in health is not considered as wastage but as investment for socio-economic development, for the defence and security [of the state] and it is reflecting the qualities of the new system [of governance]*' (MoH 2011: 1). Accordingly, the state developed a series of policies to develop disease control plans and combat the threat posed to the state by infectious disease.

Infectious disease control in Lao PDR is governed by an entirely separate legal and policy framework to other areas of health provision. Prior to the interest in Southeast Asia following SARS, the Law on Hygiene, Disease Prevention and Health Promotion (2001) was the only law which addressed infectious diseases, and it was directed towards prevention rather than including reference to provision of effective response in the case of an outbreak of concern (International Federation of the Red Cross and Red Crescent Societies (IFRC) 2009: 7). However, incidents of the SARS crisis (2003) and repeated outbreaks of Avian Influenza (2003-7) demonstrated that infectious diseases could be a potential national security threat, as well as reflecting the normative and legislative changes to global disease control. This led to the establishment of the National Coordination Committee on Communicable Diseases (NCCDC) by Decree No. 377 of the Prime Minister in early 2004 (IFRC 2009: 40). These decrees took a broad approach to Lao PDR's remit and duties, including management of all kinds of communicable diseases, reflecting the broad approach towards disease threats of the IHR (2005), which can be seen to be the first example of the

state embracing the normative and legislative requirements of the GDG agenda.

It is interesting to note that the composition of the NCCDC includes the Prime Minister of Lao PDR as well as the Ministers of Foreign Affairs, Public Health, Public Security, National Defence and Finance (IFRC 2009: 54). This rather comprehensive composition highlights that the threat of communicable disease is taken to the highest organs of the state and, similar to Thailand, decisions relating to disease control require sign off at the cabinet level. This demonstrates the importance of sovereign decision making in disease control in Lao PDR. It is here that the first challenge to the norms promoted by GDG can be witnessed. As stated by a senior public health official in Lao PDR, public health teams are unable to share any information relating to disease outbreaks to other actors without seeking approval from further up the political chain (Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013). This causes inherent delays to the sharing of disease pertinent information, which is opposite of the very objective posited by the IHR (2005) revisions and normative agenda⁵³. The remit of the NCCDC is to oversee and instruct the control, prevention, ceasing and elimination of outbreak of all kinds of infectious diseases. The committee is also tasked with collaborating with other states, international organisations and NGOS. Most crucially, however, it is the only body working in disease control in Lao PDR which is able to mobilise financial resources in the time of an outbreak, therefore this committee is perhaps the most vital to the disease landscape in Lao PDR. As such NCCDC has a real and significant authoritative role in infectious disease management (IFRC 2009: 54).

Following outbreaks of avian influenza (2003-2007) the National Avian and Human Influenza coordination office (NAHICO) was established to manage the control of this disease of pandemic potential. Yet, avian influenza does not represent the greatest disease burden within Lao PDR, having only suffered two laboratory confirmed cases in humans. Nevertheless, as avian influenza has been framed as a threat to global health security (p.13), it might be that Lao PDR feels a responsibility to prioritise this disease in order to secure greater funding from international actors. Part of NAHICO's designation was to act as a bridge between the Ministry of Health and a range of other governance actors (donor

⁵³ Although the NCCDC is not the IHR (2005) focal point, a duty which is given to the NCLE (to be discussed).

states, international organisations and NGOs). This was particularly focused on areas of surveillance and response, where due to a lack of capacity at the national level, considerable functions have been outsourced to international actors (as will be shown in the next section of this chapter) (IFRC 2009: 41). The creation of such an institution could represent increasing compliance with the ever-present globalised norms of GDG, including collaboration with others.

Yet, in 2009, following the emergence of H1N1 globally, the Prime Minister's office renamed NAHICO the National Emerging Infectious Disease Control Office (NEIDCO), effectively changing its mandate from addressing only avian influenza to being responsible for all emerging infectious diseases (Chanthakoummane et al 2009 IFRC 2009: 56). This reflects the changing priorities of the IHR (2005) which takes an all risk approach to infectious disease and the shift to broaden the normative focus of GDG (Fidler and Gostin 2006). One of the priorities for NEIDCO was to continue to maintain and coordinate relationships between relevant government agencies, departments and international partners (carrying on the work of NAHICO in this way) to steer the strategic elements of the national plans for emerging infectious disease control (Chanthakoummane et al 2009). Importantly it also maintained relationships with key international actors to ensure continued financing. In this way, it could be said that a key role of NEIDCO was to demonstrate that Lao PDR was prioritising and maintaining the global understandings of GDG, such as taking an all risk approach to disease control, and working transparently with partners to limit the impact of any outbreak. The role of NEIDCO shows Lao PDR exhibiting responsible sovereignty in the eyes of the global community, as it is keen to remain in good standing amongst the global community.

A second, and arguably more important, role of NEIDCO is to report outbreaks of infectious disease to the Prime Minister through the NCCDC mechanism. When an event occurs, it is then the Prime Minister who takes the lead deciding what response should be taken. For example, in 2009 when H1N1 posed potential threat to the region, NEIDCO reported this to NCCDC and, subsequently, the Prime Minister's office requested NEIDCO to take responsibility for control of the virus (IFRC 2009: 56). This is representative of much of the public sector in Lao PDR, as civil servants are reluctant to take decisions without referring matter to their superiors, as a result relatively minor decisions are left to relatively senior

officials. When they are unable to, decisions are not made and as a result bureaucracy is sluggish and unresponsive (Stuart-Fox 2009). In terms of answering the question of this thesis, this has two resonating issues. Firstly, it acts as a reminder that disease control is of upmost importance to the executive in Lao PDR as matters are referred to the highest level of the state and the LPRP. However secondly, as public health professionals are unable to act without executive sign off, it shows that the norms of disease control such as rapid reporting, purported by the GDG, have not been internalised to the extent that the state may suggest to their international counterparts, as the Prime Minister's office will decide on any course of action, dependent upon other competing domestic priorities.

Another key actor in infectious disease control in Lao PDR is the National Centre for Laboratory and Epidemiology (NCLE), established in 2006. Its main functions are surveillance, outbreak investigation, laboratory diagnosis and response to communicable diseases, as well as being designated the NFP for the IHR (2005) (IFRC 2009: 56). Routine infectious diseases surveillance through the NCLE consists of weekly reports sent from provinces and districts relating to 17 epidemic prone diseases⁵⁴ which are notifiable in Lao PDR (Calain 2007, Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). In total there are 17 provincial surveillance units and 141 district health offices which routinely report surveillance data to NCLE (IFRC 2009: 65). This information is collated centrally at the NCLE, which monitors whether these diseases surpass established thresholds, and therefore may pose a potential threat (IFRC 2009: 65). This same routine reporting mechanism is also used for communicating any potential emergency outbreak rapidly. For example, if a hospital encounters a suspected case of avian influenza or an acute respiratory infection, it must report this immediately (IFRC 2009: 65).

This national surveillance system not only consists of this traditional routine reporting through hospital and health centre infrastructure, but also combines a further direct telephone number to report a suspected outbreak (WHO 2011c: 164). Individuals and designated village health volunteers are encouraged to report suspected outbreaks on this dedicated hotline (De Sa et al 2010). Further developments in the infrastructure of surveillance have come from the creation of the Lao Early Warning Alert and Response

⁵⁴ This compares with 84 in Thailand and 32 in the UK, although the UK widens this with their final category of 'other significant diseases' (see p 132 and p 169)

Network (EWARN), an indicator based syndromic surveillance system, created under the auspices of NCLE (WHO 2011b: 13/14). This EWARN network is now in 144 districts nationwide – making real-time use of clinical data more meaningful though instant interpretation (US CDC 2012c, Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013).

What has also become apparent in the analysis of disease surveillance mechanisms in Lao PDR is that whilst the technical aspects are generally established at different levels (district, provincial, national, regional, global), communication between levels is lacking, and political commitment to improve this is absent. As was shown (p.30), the GDG framework suggests ‘early detection, rapid response’ as the most effective method for limiting the spread of any outbreak. However, there has not been sufficient epidemiological or communication training at the local level to ensure that those involved understand the importance of reporting rapidly and the concepts of effective and strict response methods are upheld (IMP 2004: 90). Although part of the role of the NCLE is to communicate with all actors, both at the devolved level of the district and with international actors operating in disease control within Lao PDR, the problem remains that the chains of communication and coordination are not defined within any legal instrument and thus may be subject to on-going good relations between individuals in order to remain effective. Conversely, communication mechanisms suffer from breakdowns at certain points, once again exposing a hole in the health security of the state as any message is potentially delayed (Interview, Consultant, ADB, 8th April 2013, IFRC 2009: 67). This informal communication structure once again highlights the tensions between sovereignty with the state deciding how to structure public health communication mechanisms and the challenges this poses to a globalised effort for effective health security and disease governance.

Key to any of these policies for disease control is to incorporate them into wider efforts for universal health coverage for its citizens. There is a fundamental weakness in any disease surveillance system within a state that does not have universal health coverage⁵⁵. If individuals who are ill are unable to access free (or at least relatively cheap) health services, then fewer people will seek medical attention, and any pathogen will spread from this

⁵⁵ This was highlighted in the UK case study, p123

person before being detected by health authorities. At a macro level, the fewer people that seek medical attention, then less public health data can be collected to be used for surveillance. All national surveillance systems work on the premise that the number of cases of a particular illness which are actually seen in any given clinic represent a greater burden of people who do not access health services. Public health officials tend to use complex population modelling techniques to estimate the true burden. However, if only a very few number of those infected seek medical attention, then this has broader statistical implications making any surveillance system in Lao PDR inherently fragile.

Whilst several states do not have universal health care, Lao PDR has instead developed a community insurance plan for health at the district level in an attempt to offer financial security to its citizens needing health care (Interview, Consultant, ADB, 8th April 2013). However, this community insurance system has still proven to be too expensive for the average Laotian citizen. The uptake of this system has been poor (Alkenbrack, Jacobs and Lindelow 2013), leaving any effort for universal health coverage lacking, impacting on the efficacy of any disease surveillance infrastructure. This gap has been identified by public health officials who have attempted to address this in the draft National Policy on Epidemiological Surveillance and Response⁵⁶. This broad policy is thought to outline strategies to reinforce the importance of coordination between different health departments and agencies, strengthen capacities of existing agencies, increase health provision and surveillance, and train more staff at the technical level (IFRC 2009: 66). In particular, this strategy aims to strengthen the surveillance infrastructure in the poorest and most remote districts, as this is viewed as essential to protect against serious outbreaks of diseases such as diarrhoea, or cholera, malaria or dengue fever (IMF 2004: 89). However, as this policy has yet to be ratified, this represents tensions between the normative understandings of global infectious disease control and Lao PDR's decision not to prioritise its domestic population's health through increased activity and motivation towards the provision of universal health care for its citizens.

⁵⁶ At the time of research was awaiting finalization from the Ministry of Health, and as of July 2015 was not evident as being published online

6.4.1 Digital Disease Surveillance

There has been increased awareness of the utility of using global digital disease surveillance as a tool for localized or national outbreak awareness, as stipulated in the *7th 5 year health sector development plan*: *‘We have the opportunity to apply new advanced science-technology and management approaches from external sources.’* (MoH 2011: 1). Accordingly Lao PDR is increasingly using global digital technology as a method for getting early warning on outbreaks of infectious disease. ProMED-Mail, Epi-Inform, MBDS, WHO and websites from other Ministries of Health are the most regularly used to gather infectious disease information (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013; Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013). These are checked on a daily basis by the team at NCLE, although direct email communication remains the key technology for gathering information about infectious disease. However, such email communication will only come from colleagues with whom NCLE has an established relationships and this may miss initial rumours on a digital disease surveillance websites (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013; Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013). Nonetheless, due to issues with access to private goods (computers) and public goods (widespread internet connectivity) at the district level, the majority of national surveillance is still paper based (De Sa et al 2010). However, computer-based systems are increasingly used at provincial levels (WHO 2011b: 15). Furthermore epidemiologists in Lao PDR lack the resources to engage with rumour surveillance, such as a lack of access to regular Internet services. Only 12% of the population had access to the internet in 2015 (World Bank 2015c). Therefore the ability of epidemiologists especially at the district or provincial level, to access potentially pertinent disease data online is limited. The NCLE head office does have access to internet and can access such digital sites, but this is not true of all provincial offices and certainly not district health units. Therefore these services are of little use outside of MoH (Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013).

Moreover the probability of individuals using the Internet seeking health related information is considerably lower than in developed states with higher Internet usage to contribute to health ‘big data’ collection. This can be attributed both to internet availability and the ensuing cultural shift to rely and engage with the Internet in this way. Thus it is

unlikely that online surveillance will be useful until Internet coverage and the associated cultural norms improve. However, due to lack of Internet access in Lao PDR, the ADB is trialling a similar method of providing phone cards to individuals at the district level who wish to report a suspected outbreak of an infectious disease, but otherwise would not have the means to report it (Interview, Consultant, ADB, 8th April 2013)⁵⁷. Whilst this relies on a similar system of self-reporting, and will improve the paper-based system, it does not represent a domestic priority by the government of Lao PDR to improve disease control, or to meaningfully engage with global recommendations and normative understandings of shared surveillance.

There is also a further key impediment to the use of this technology for disease surveillance in Lao PDR. Although a change in policy for national surveillance has encouraged public health professionals to seek disease pertinent information beyond the traditional public health infrastructure such as media sources, contacts with colleagues and digital disease surveillance, any data collected is only as useful as its analysis or interpretation (Fidler and Gostin 2006, Lee and Thacker 2011). Rumour surveillance is only meaningful when adequate human resources can be allocated to the systematic collection, verification and analysis of any such unofficial information. This has proven problematic in Lao PDR where ministry staffs are already overburdened with the analysis of official surveillance reports (Fidler and Gostin 2006). The NCLE in Lao PDR is staffed permanently by only 3 people⁵⁸, who are exceptionally busy managing outbreaks, and have limited training in how to effectively engage with rumour surveillance where it does not detract from other surveillance activities domestically, which may be more pertinent. As such, despite good intentions to engage novel forms of disease surveillance, any ability to do so in a meaningful way is limited by the chronically under resourced health system. This highlights the tension between domestic sovereignty of Lao PDR and the appearance of it being a responsible sovereign on the global stage. If the state had a true commitment to improving health security for its citizens it would allocate greater resources to creating a more resilient health system, with greater

⁵⁷ Notably, this system is not run by Lao PDR, who as an authoritarian government may not be so willing increase the potential for communication between people (i.e. so they can organise an opposition)

⁵⁸ This was directly observed during interviews undertaken in Lao PDR, April 2013

trained staff and greater health provision for citizens⁵⁹. Yet, by encouraging the use of these digital sources in its policies (which are notably those which are translated into English) it remains a responsible actor in the GDG community's eyes.

Furthermore, the use of rumour surveillance through media sources in Lao PDR is somewhat flawed if they are seeking get information not available through state surveillance channels. This is due to the nature of the media in Lao PDR. Although article 44 of the 1991 constitution and an updated press law in 2008 guarantees freedom of the press (Lao PDR 1991), it has little practical effect on journalists⁶⁰. Individuals are still punishable by criminal law if they report news which weakens the state (such as the presence of an infectious disease). However very few journalists are charged under this law, as all media is subject to considerable self or official censorship (Freedom House 2013). Lao PDR rates 168 out of 179 on the Press Freedom Index 2013 (Reporters Without Borders 2013). Moreover most staff working in media outlets are members of the LPRP, and all media must be approved by the Ministry of Information and Culture (the Minister of which also sits on the NCCDC). These considerable links between the state and media mean that it is unlikely that rumour surveillance will be a useful tool for domestic disease surveillance as the media coverage is produced in collaboration with government sources. This may also affect the extent to which local NGOs or communities may be willing to report health conditions through informal channels (Fidler and Gostin 2006). Accordingly, methods such as the village health workers or phone card provision to report emergencies may prove futile. Despite these potential limitations of their use, the introduction of these provisions is another example of Lao PDR exhibiting its sovereign responsibilities of early detection of outbreaks and being a responsible actor in the GDG mosaic.

This section nuanced the manner in which Lao PDR appears to be acting as a responsible sovereign by internalising several of the norms of GDG. It has also shown that there are instances where Lao PDR exhibits its sovereignty in a more traditional format, focusing on strict protocols and non-intervention in domestic affairs, ensuring the LPRP and one party state are not challenged. The following section of this chapter shows how the Lao PDR state

⁵⁹ Only 2% of the GDP of Lao PDR is devoted to health, compared with 9.1% in the UK and 5% in Thailand (WHO 2015d)

⁶⁰ Once again, this is a clear divide between policy and practice, and may represent Lao PDR wanting to be perceived as a responsible sovereign to freedom of speech campaigners, or similar groups.

has made efforts to meet the legislative requirements of the GDG framework, by attempting to meet the core competencies of the IHR (2005)

6.5 IHR

It is important to analyse how Lao PDR has engaged with the legislative obligations of the GDG agenda. It may be of no surprise as that as the state wishes to appear responsible in the eyes of the global community, by mid-2012 Lao PDR had made substantial progress in improving their disease control infrastructure to meet the IHR (2005). As such Lao PDR was chosen by WHO Western Pacific Region Office (WPRO) to be reviewed as a case study assessing progress in meeting these competencies (de Sa et al 2010). On first glance, it is possible to see the strong commitment that the government of Lao PDR have made towards meeting IHR (2005). This is evidenced through designation of NCLE/NEIDCO as the NFP (ADB 2013: 15), the strengthening of indicator-based surveillance and the creation of the EWARN (p212, p213).

Beyond developing its surveillance infrastructure, Lao PDR has made progress with improving laboratory capacity as required by the IHR (2005). This activity has all taken place under the auspices of NCLE. As discussed (p213), the NCLE features as the centre for infectious disease surveillance, case and outbreak investigation, response and research, and as a national reference laboratory (IFRC 2009: 65). In 2006, Lao PDR obtained the in-country diagnostic capacity to analyse specimens for the influenza virus as part of influenza response programme (Vongphrachanh et al 2010). This was trialled in 2007 when Lao PDR was able to diagnose the outbreak of H5N1 amongst poultry populations itself. Furthermore, in 2010 this laboratory obtained World Health Organisation National Influenza Center designation, and now contributes virus isolates and surveillance data to WHO's Global Influenza Surveillance and Response System (GISRN) (US-CDC 2012d). However, this system is only able to collect samples from 3 hospitals in Vientiane on a weekly basis, so it would not be effective in terms of crisis. Furthermore, it is not able to test for all pathogens, and a considerable number are still sent abroad for testing, predominately to Thailand and Japan (De Sa et al 2010). Nevertheless this demonstrates a clear commitment to the global community that Lao PDR wishes to meet the IHR competencies for laboratory work.

In terms of reporting under the IHR (2005), Lao PDR appears to be fulfilling this duty to date. Laotian government officials reported the country's first suspected human case of avian influenza in 2005 to WHO within hours, and even on a weekend. Although a laboratory in Japan determined it was a false alarm, the quick notification was one of several signs that Lao PDR does not appear to be concealing any outbreaks of disease (Bradsher 2006). Similarly, when the first human case of H5N1 was detected in 2007, the NCLE was quick to share data surrounding it internationally and with WHO (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). As such, Lao PDR is generally viewed as being positively compliant with the IHR and presented as evidence of states embracing the norms of GDG to ensure greater reporting, transparency and prioritising these over domestic concerns (de Sa et al 2010). When delays in reporting were noticed, it was attributed to public health capacity failures, rather than direct political intent to deceive the international community (Boltz et al 2006, Herrington 2010, Coker et al 2011). In this way, it could be suggested that Lao PDR has internalised the normative and legislative understandings of GDG and have been transparent in its reporting, doing so at a potential cost to its own poultry economy.

However, this prompt reporting may not be as prompt as it initially seems. Due to the geography and lack of transport infrastructure in Lao PDR, it may be hard at times even to determine what is happening in the many Laotian villages that lie a day's walk or more from the nearest road (Shuey quoted in Bradshaw 2006). Therefore, there will be considerable delays in getting disease relevant information to the NCLE in the first place. By extension, if the government of Lao PDR was really concerned about maintaining its responsibilities at the global level, it would improve communication infrastructure to be able to receive information about diseases more promptly (as well as other wider societal benefits of improved travel links). A further thorn in the side of meeting global responsibilities is the structure of the NCLE. As the NFP for the IHR (2005), it is responsible for notifying the WHO of any unusual health events. However, as aforementioned, before any information about a suspected infectious disease outbreak is notified to the wider international community, the NCLE will report the issue to the Secretariat of NCCDC who will then report to the Prime Minister (Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013). The Prime Minister consents to the information being shared globally. The fact that this requires sign off at the highest level of the executive has two further potential delays to

sharing disease pertinent information globally. Firstly, any notification could be a delayed due to workload capacity or communication problems between the NCLE, NCCDC and office of the Prime Minister. Secondly, as the Prime Minister has other priorities to juggle at the domestic level, he may be as open with the disease status as a public health official may be. Yet, there is no evidence to date to show that Lao PDR has shirked this global reporting responsibility.

Despite good intentions to meet the legislative obligations under the IHR (2005) over 60% of the competencies remained below the WHO requested levels (WHO 2012c). Lao PDR requested an extension until June 2014 to meet its core capacity requirements (ADB 2013: 4). As of 2015, these capacity gaps had still not been met (WHO 2015f). The gaps include areas of surveillance, rapid response, laboratory capacity, the capacity of the health system to implement changes, lack of financial resources for implementation, lack of equipment and trained staff, poor quality of services and standardization, lack of advocacy to get political support for changes, limited human resources, coordination issues within and beyond MoH and issues relating to scaling up communication of disease pertinent information from province to national to international and global levels (ADB 2013:12, UNDP 2013: 132). Although Lao PDR may appear to be making strides to meet its legislative requirements for GDG, it is yet to achieve this, due to political ill-will and funding shortfalls. Consequently, in an effort to appear that they are prioritising the norms global health security and collective action for increased surveillance and response over their own sovereignty, Lao PDR has welcomed in a multitude of international actors to help in these efforts.

6.6. Multi-stakeholder engagement

Another manner by which Lao PDR is able to exhibit compliance with GDG is through its collaborations with the multi-actor framework of GDG. The New Economic Plan in 1986 allowed the government to welcome foreign investment and international donors to work in Lao PDR. With the government able to spend less than \$2 per person annually on health care, officials have been reluctant to take on debt, and have tried to use donor grants, rather than loans where possible (Phengta quoted in Bradsher 2006). Nowadays, Lao PDR relies on donor support for both horizontal health system strengthening and vertical disease

specific programmes. Furthermore, as a consequence of the increased focus by the global community on Southeast Asia as a hot bed of infectious diseases, Lao PDR has become increasingly dependent on foreign aid (St John 2006). Lao PDR has thus begun to engage with a range of other state and non-state actors to help implement, amongst other things, effective disease surveillance and response. Other actors in the disease governance landscape in Lao PDR include a few (governmental) mass organisations and a range of NGOs and International Organisations, as well as other state's bilateral assistance (WHO 2014d: 1)

6.6.1 NGOS

Domestically, civil society is organised and integrated into the one-party state. The LPRP's mass organisation is the Laos Front for National Reconstruction, which incorporates the Lao People's Revolutionary Youth Union, the Lao Women's Union and the Lao Federation of Trade Unions (Paul 2010: 59). Mass organisations such as these have actively participated in health related activities, especially mobilizing communities and conveying health educational messages, and they have played a crucial role in the implementation of health activities especially at the grass-roots level (WHO 2011b: 16). In terms of disease surveillance these mass organisations have been active in the training of village health volunteers to understand the importance of when to report an outbreak to the district/provincial/national level as well as offer training in sustainable health provisions (Interview, Consultant, ADB, 8th April 2013, IFRC 2009: 52).

NGOS have also been a key part of surveillance and response in Lao PDR. These NGOs are for the most part international, as until 2009, prior to the ratification of the *Decree of Associations* Lao citizens were unable to establish NGOs (ADB 2011). NGO involvement in disease control in Lao PDR can be seen in two different ways. Firstly, as with UK and Thailand, an open dialogue exists between employees of NGOs operating in Lao PDR and those at the NCLE. If an outbreak occurs in a part of the state where an NGO is operating informal communication channels exist to share this information to those at NCLE allowing for targeted surveillance and rapid response mechanisms (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). The other manner in which NGOs are used for disease control is through their expertise and resources. Lao PDR has been trialling the outsourcing of some data collection and laboratory verification to NGOs. Red Cross and

CARE International are piloting projects where they are taking over surveillance activities in certain districts in Lao PDR, most notably in remote highland ethnic communities. However, at the moment these organisations can only really be involved in data collection activities. They cannot evaluate data at the national level, and nor is it their responsibility to do so, nor to make the decision as to notify international actors (Kamradt Scott, Lee and Xu 2013: 95). Vitally, this means that Lao PDR still retains the power to decide what to do with any pertinent information about a disease occurrence, and can decide whether it has any sovereign concerns about declaring any relevant data. Nevertheless the trials to date show that the event based surveillance system implemented by NGOs have produced impressive results showing that they have greater resources and technical ability to undertake surveillance within Lao PDR's state boundaries. However, questions of sustainability and scalability have yet to be established as to its efficacy at the national level (Kamradt Scott, Lee and Xu 2013:95).

Laboratory capacity is also increasingly outsourced to NGOs, with Wellcome Trust, Pasteur Lao, and Christoph Merieux Laboratory frequently used to type or verify pathogens where NCLE laboratories lack capacity (ADB 2013: 18). When isolates are not sent to these NGOs, they tend to be sent to other states in the region, such as Thailand and Japan for virus identification. However, as with the outsourcing of surveillance to international NGOs and bilateral relationships with regional states, the decisions with how to proceed once diagnosis has taken place still needs to be framed by national policy. Lao PDR is still able to assert its sovereignty over its viruses and the decision about when to notify others about any outbreak. The engagement with NGOs in this way shows that Lao PDR is engaging with the norms associated with GDG, and is open to working in collaboration with other actors when the state does not have the sufficient capability to offer effective surveillance and response. This once again shows Lao PDR enacting sovereignty as responsibility as they are prioritising global health security through effective surveillance and laboratory provisions, even though such infrastructure is traditionally under sovereign control within the MoH.

6.6.2 International Organisations

In a further effort to show greater compliance with global norms of disease control, international organisations have been influential in Lao PDR's provision of disease control in

recent decades, most notably the WHO, ADB, and World Bank. The WHO's role has broadly been to improve health indicators in the country. Key areas for cooperation include health sector development, emerging and infectious disease surveillance and response, HIV/AIDS, tuberculosis, malaria, reproductive, maternal, child and adolescent health, immunizations and vaccines, child and adolescent health, non-communicable diseases, injury prevention, mental health, and environmental health. (WHO 2014d: 2). Most pertinently, it has been working with Lao PDR to develop the EWARN system extending from village to district and provincial levels to rapidly report outbreaks of disease (WHO 2011c: 171). Further activities have been control of infectious disease food safety-related events and other health hazards, to prevent and control neglected tropical diseases and to strengthen capacity of government agencies and health workers for preparedness and response to health security risks following natural and man-made disasters (WHO 2011b: viii). This has also been highlighted in Lao PDR's work with UNSIC, where Lao PDR has shown political commitment to meet its requirement of influenza monitoring and as such became flagged as a good practice case (UNSIDC and World Bank 2010). This has not only attracted further funding, but also international renown for its efforts in disease control enhancing its standing globally and thereby showing that it is prioritising GDG over any national priorities, although this may not be undertaken for altruistic reasons, but rather to attract donor dollars.

Similarly, the World Bank has been prominent in the response to emerging infectious diseases in Lao PDR, rather than focusing solely on surveillance, working through two key mechanisms. Firstly it has provided an emergency funding mechanism to Lao PDR for use in case of an outbreak as the state has no contingency arrangement domestically (World Bank 2013). This has been part of the wider World Bank Global Programme for Avian Influenza (World Bank 2013). Secondly, it has provided a compensation mechanism to farmers who have had to destroy their livestock due to avian influenza. This has been a successful scheme, as before its introduction there was little incentive for Laotian farmers to notify outbreaks occurring and infected flocks were often hidden. The welcoming of such initiatives into the domestic governance arrangements for disease control is further evidence of the acceptance of the globalised norms for disease control through collective action for improved surveillance and response, and the desire of Lao PDR to appear to be a responsible state.

The ADB has also proven a vital donor giver in Lao PDR. Its Greater Mekong Sub-region Project has a mandate to improve disease surveillance and response, enhance regional cooperation and collaboration and ensure capacity development for technical methods of disease control (Interview, Consultant, ADB, 8th April 2013). This has included a \$12million grant for Lao PDR focusing in particular on targeted support for Dengue and NTDs (Interview, Consultant, ADB, 8th April 2013, Interview Regional Coordinator, ADB, 8th April 2013). As a development fund it is able to focus on those diseases that prove the highest burden on the population of Lao PDR, rather those which pose the most strategic interest to invest, those of ILI (Interview, Regional Coordinator, ADB, 8th April 2013). This is in contrast to other actors' priorities in disease control in Lao PDR, which have tended to focus on issues of pandemic and avian influenza. The involvement of ADB in this way appears to be closer in line with domestic needs of Lao PDR and may account for the close working with Lao PDR officials and the ADB.

6.6.3 Bilateral state assistance

Alongside the above list of global actors involved in disease surveillance in Lao PDR, it also has developed relationships with bilateral states. These fall into two main categories; their regional neighbours and donor governments. This next section of this chapter examines the ways in which Lao PDR works across their borders with regional counterparts. There is considerable evidence of effective cross border working, particularly at the grassroots and informal levels. This section also analyses how Lao PDR has worked with Western states in receipt of their aid provisions and efforts to improve disease control.

One of the key ways in which cross border working in Lao PDR comes into fruition is through the diagnosis of Laotian nationals with certain diseases in foreign health care centres. Due to considerable underdevelopment and chronic mismanagement of health governance, there is considerable lack of resources for public health infrastructure and there are few effective primary care facilities (p.203, MoH 2011: 3). As such Laotian patients often seek medical advice from across the border in Thailand or Vietnam instead of visiting health services within Lao PDR, where they are available. The first cases of H5N1 in 2007 amongst Laotian citizens were diagnosed in Thailand and offer a good example of informal case based communication facilitating a joint outbreak investigation between two countries

where the patients had gone to seek treatment. Thai public health officials informed their Laotian counterparts immediately after the diagnosis in Nong Khai province in Thailand. The next day experts from the two countries conducted a joint outbreak investigation in the village where the outbreak started (de Sa et al 2010). This timely grassroots joint response was grounded on trust-based collegial relationships, without any requirement for permission from top leaders (Gresham et al 2013). This was permitted as they were not making the decisions about global level reporting; rather they were carrying out local level enquiries about the scale of the outbreak. Civil servants involved in cross border activities such as these deserve more attention than they have received to date, because routines such as this example constitute how state relations could be, if such globalised working did not need executive approval (High and Petit 2013). Such grassroots local level initiatives would represent a real move towards embracing GDG and the ensuing norms of collaborative, international working.

In this instance Lao PDR is effectively using the surveillance system of Thailand, its regional dominant neighbour, to act as a proxy for its own weaker public health infrastructure. This may challenge Lao PDR's disposition to controlling information and the centralisation of the reporting process through the executive. However, by allowing Thailand to take this role, Lao PDR once again shows its commitment to the norms of regional and global health security. It is able to improve the health security of its citizens, and ensure global health security more generally, whilst supporting the projection of the Thailand chapter by actively following the regional hegemon and allowing it to take the precedent in surveillance activities regionally. As discussed (p.188), for such a hierarchical relationship to develop, it requires the other states in the region to be willing to cede such a role to Thailand. It could be seen, therefore, that Lao PDR's use of Thailand's surveillance is an exhibition of this subjugation to Thailand as the regional leader for disease control. Simultaneously, however, this method of cross border transparency in disease control activities globally projects its responsibility ethos towards transparency and ensuring global health security in outbreaks, showing the internalisation of these norms of GDG.

As part of this regional discourse, there has also been increased focus on border areas by Lao PDR as an area of potential concern for PoE control measures (IFRC 2009: 51). This is reminiscent of Thailand's focus on border controls, which once again suggests that Lao PDR

is happy to follow Thailand's lead in this area. Accordingly there is now considerable cross border surveillance at the district level with counterparts in China, Vietnam, Thailand, Cambodia and Myanmar. Resources, training and networking sessions have been a part of the Greater Mekong Project, in order to stimulate dialogue between colleagues either side of the border to share data relating to outbreaks and best practice examples of how to improve their own surveillance methodology and activities in this area (Interview, Regional Coordinator, ADB, 8th April 2013). This allows Lao PDR to appear to be prioritising regional and GDG over any domestic priorities. This can be further evidenced by WHO WPRO's choosing of Lao PDR as its index case for the region in IHR compliance as the state is seen as a conscientious actor, with considerable evidence provided of their efforts to meet IHR (2005) competencies. However this regional and bilateral working has failed to be scaled up in any meaningful way in practical action to date, despite such examples, and cross border working being codified in MOUs (Interview, Consultant, ADB, 8th April 2013). This once again may be indicative of a tension between individual state sovereignty and any global or indeed regional disease governance understandings.

Communication relating to disease surveillance between Lao PDR and its neighbouring countries is currently based on good informal relationships, facilitated by the wealth of regional networks that have developed in recent years. Lao PDR has established memorandums of understanding (MOUs) with its neighbouring states in order to share epidemiological information when necessary. This includes with Cambodia, Vietnam, China and Thailand. However, one area which challenges the success of such projects is the question of trust between these actors (Lai, Kamradt-Scott and Coker 2013). Trust plays a critical role in the sharing of disease risks and shared responsibilities that can lead to collective action, strengthening compliance with GDG. Lack of trust hinders effective response to a pandemic first because adverse health events are characterised by decisional urgency, high uncertainty and threat (Boin et al. 2005). Although the issue of trust has appeared as a mitigating factor in Thai relationships (p.193) there is no evidence to show that this is of concern in Lao PDR. Interviews in Vientiane showed that they have a transparent relationship with their neighbours and believe that this is reciprocated to the most part (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013, Interview, Consultant, ADB, 8th April 2013).

In terms of relationships with donor states for improved disease control, there has been a considerable change in practice in the last decade. Historically Lao PDR has only chosen bilateral agreements with states where it can maintain an equal standing based on both political similarities, as well as economic pressures as a weak state, rather than having bilateral relationships with super powers. Receiving bilateral aid from this range of donors has been a dramatic turn from previous donors to Lao PDR, as prior to 1986 and the New Economic Plan were only received from the Soviet Union, China and especially Vietnam (Stuart-Fox 2009). This suggests that Lao PDR has always considered its sovereignty in aid reception, previously only wanting to receive international support for development from countries with similar political ideologies, and therefore those who would not question their governance structure with a one party state. However, this is no longer the case and relationships have been formed with those states or international bodies that can provide much needed resources for development or health provision. For example, through strict compliance with IHR (2005) reporting, Lao PDR wants to appear as a responsible state in the international community's eyes (and WHO's) so as to attract further funding for the further implementation of IHR (2005) core competencies.

As a low income state Lao PDR remains reliant on financial contributions from international community to boost disease control activities although there is no guarantee of financial sustainability (UNSC and World Bank 2010). A substantial part of this international involvement in disease control in Lao PDR comes from direct foreign donations through bilateral agreements with other states. Through different bilateral initiatives funding surveillance programmes for emerging diseases, major donors have pledged to help developing countries meet requirements indicated by the revised IHR (2005) (Calain 2007). These donors are important for Lao PDR, given that government revenue hardly covers recurrent expenditure. However, virtually all infrastructure investments from bilateral donors have been ring-fenced for vertical programmes meeting donor's health security concerns, rather than broader health system development. The provenance of such aid is Japan, Sweden, Australia, Germany, France and EU (WHO 2011c: 169). By allowing a range of other state's development assistance into their disease control provision, this is another clear example of Lao PDR embracing the norms for collective action for greater surveillance and transparency for improving health security.

Importantly in these relationships, and unlike other parts of the globe, Lao PDR has been careful that the aid it receives does not have stringent conditions attached, and that partners delivering aid assistance support the government and its leadership role (Lao PDR 2006). This reassurance that Lao PDR requires that there are few or a limited conditional tie on any bilateral aid received highlights and the focus of donor partners supporting its government may be another example of state, or perhaps LPRP sovereignty challenging norms of GDG.

This change in accepting aid from a range of international donors is important when considering infectious disease governance in Lao PDR. Lao PDR tries to remain transparent globally by signing MOUs or development agreements with a range of actors, but only from those with loose conditions on the aid received. It does so in an attempt to maintain the appearance of acting as a responsible actor in the state system, and yet maintain its sovereignty by ensuring that its authoritarian regime form of governance is not challenged. As a part of this tension it is interesting to note that until 2004 there was, a notable lack of aid from USA, despite the damage caused by the US in Lao PDR during Vietnam War (Stuart-Fox 2009, Usowski 1991). The USA only granted Lao PDR normal trade relations in 2004, and even then the small donations that were received were related to human rights abuses. Still to this date USA has little influence in Lao PDR which can be seen in its minimal donor activity (Stuart-Fox 2007). The majority of development assistance offered to Lao PDR by USA is done through NGOs or International Organisations, perhaps because USA would not want to be seen to offer bilateral assistance to an authoritarian regime.

In terms of disease control, USA through US-CDC, established formal links with Lao PDR in 2006 (US-CDC 2011). These links commenced a 6 year collaboration between US-CDC and Lao PDR to develop the country's influenza public health capacities, including funding of vaccinations, enhancing laboratory detection and expanding nation's surveillance system (US-CDC 2012d). The change in Lao PDR policy in 2006 to welcome US-CDC support in disease control can be seen to be correlated with Lao PDR's understanding of the norms of global transparency in disease control with the introduction of the IHR (2005). This shows that Lao PDR is increasingly compliant with the norms of GDG, and may in fact be doing so to attract further funding. It is clear that Lao PDR has been keen to show to the international

community that it includes multiple stakeholders in the process of response in a timely manner and are willing to share its surveillance data accordingly.

Once again this shows Lao PDR emanating norms of transparency as part of the GDG framework. However, all may not be as meets the eye, as the involvement of US-CDC is particularly stringent and scarce. This is interesting to note when analysed in comparison to their activity in the region, notably in Thailand (p.193). The focus of its work is in avian influenza, which is unsurprising when considering their global priorities. However US-CDC documents regularly highlight the global nature of all diseases, and the threat posed by weak surveillance infrastructure. Thus, the fact that US involvement in the country is not forthcoming has political undertones, such as reticence by Lao PDR to welcome US investments within the state, or vice versa. This is particularly interesting as shows yet another more subtle example of state or LPRP sovereignty challenging the rhetoric of global health security that the GDG landscape (with USA as a keen supporter) seeks to champion.

6.6.4 Regional initiatives

Further to the above bilateral arrangements which provide healthcare and disease control efforts in Lao PDR there are also considerable regional initiatives present. These include the Association of South East Asian Nations (ASEAN), Ayeywady- Chao Phraya Mekong Economic Cooperation Strategy (ACMES), APEC and MBDS (Arita et al 2004). These are perhaps the most pertinent of all activity in disease surveillance as they have had the greatest effect on regional disease control. As shown in the Thailand chapter, regional networks have gained increasing importance as a method for effective disease governance in recent years. Indeed, in the case of Lao PDR, a range of interventions designed to protect the population from the threat of disease have been implemented through pooled regional resources and collective activity.

In the wake of SARS, ASEAN established the ASEAN Experts Group on Communicable Disease Plus Three Agenda. This group aimed to *“establish, strengthen and maintain regional support to narrow the gap among member states in addressing emerging infectious disease and other communicable diseases”* (ASEAN 2013). This has included a joint FETP, strengthening and sharing clinical best practice, increasing cooperation in information sharing and several networks, meetings and exchanges amongst states. As part of this

ASEAN has committed to improving regional disease surveillance. This can be seen in the Declaration at 7th and 8th ASEAN Health Ministers Meetings 2004 and 2006, which strengthened the commitment of ASEAN +3 emerging infectious disease programme (IFRC 2009: 24).

Furthermore, ACMES was established in 2007. The collection of states that span these river deltas established a partnership to combat avian influenza and other infectious diseases. This partnership facilitates prompt and open exchange of information of infectious disease among involved countries relevant international agencies (ASEAN 2013b). Similarly APEC set up the Health Task Force in the wake of SARS and Avian Influenza to address health related threats to regional economies' trade and security (APEC 2013). In addition MBDS, as discussed (p.183), is a multilateral grouping of the regional states for disease surveillance. Lao PDR has become an active member of MBDS networking. The Director of NCLE championed the need to share disease information regionally (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). Lao PDR seeks to do this not only to improve regional health security, develop relationships with those working in communicable disease control ahead of an emergency which requires mutual working and understanding, but also so as to get information about what might be occurring in Lao PDR where routine surveillance is still not reliable, especially in remote, rural regions (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013). This is done both through the password protected web forum of MBDS, as well as further informal communication through the MBDS network (Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013).

By working collectively this has allowed regional bodies to push through a series of plans for the improvement of disease surveillance, improved response mechanisms, the pooling of clinical and laboratory methods and the timely distribution of available medical supplies (Coker and Mounier-Jack 2006; Lai, Kamradt-Scott and Coker 2013). These initiatives focus on regional governance frameworks for disease control, in an effort to strengthen regional health security. Interestingly, it was noted by interview participants in Lao PDR that these regional initiatives have overlapping agendas and often involve the same conversations with the same state officials, just with changing financiers (Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013; Interview, Global Fund Coordinator, Ministry of Health, Lao PDR, 8th April 2013). Whilst this was noted a time consuming and often repetitive process

(Interview, Senior Official, Ministry of Health, Lao PDR, 8th April 2013), it was considered necessary as Lao PDR is both reliant on the funding streams that they produce, but that it is also keen to be seen to be acting responsibly, internalising the GDG norm of collective action for improved disease control and contributing to regional health security.

6.7 External Sovereignty as Survival

As shown, Lao PDR has keenly engaged with a range of actors in disease control, and appears for the most part to have internalised the norms of GDG. In doing so, it has shared parts of its sovereign responsibilities, although this does not necessarily represent a forfeiting of sovereignty, rather a redefinition of what sovereignty means to Lao PDR. This next section aims to show how sovereignty has been redefined in parallel to the developments of the GDG regime, and highlights that Lao PDR's actions in accepting the norms and legislative processes of GDG have been to ensure sovereign and regime survival. It shall do this through a case study analysis of Lao PDR's involvement in ASEAN.

As stated in the 7th Five Year Health Sector Development Plan(: *"Cooperation will be wider with friendly countries and international to bring assistance and Lao PDR is culpable to joint populations of ASEAN and of the world populations in peace, friendship and cooperation in further development"* (MoH 2011:9)

Accordingly, Lao PDR has been keen to engage with a range of global and regional cooperation frameworks such as ASEAN, APEC, Cambodia Lao Vietnam (CLV) Development Triangle, and MBDS (Howe 2013), as well as working bilaterally with a range of other states and non-state actors. Successive Lao PDR governments have strongly supported global and regional integration and cooperation, not least to attract more donor dollars for infrastructure development. Yet there is disquiet among some as to the effect of these programmes (and globalization more generally) is having on the fragile social fabric and culture of Lao PDR (Stuart-fox 2007). The potential adverse effects of such institutional working can be seen in terms of loss of cultural identity, continued interdependence on donors and further attrition of Lao PDR's sovereign Marxist/Communist values (Stuart-Fox 2007, Interview, Regional Coordinator, ADB, 8th April 2013). However, as can be seen, Lao PDR is engaging with such governance initiatives to their own benefit. By engaging actively with such governance frameworks or international actors, Lao PDR gives the impression that

it has internalised the norms of GDG; those of ensuring global health security, collective action for greater surveillance potential and placing global health responsibility over state sovereignty. This allows Lao PDR to be viewed as a responsible sovereign by the global community, who then in turn will continue to fund health and disease control initiatives within its borders. As such, this chapter suggests that this form of sovereignty is in fact, sovereignty for survival. Furthermore, the only area in which Lao PDR challenges these global and regional disease governance norms is when activity may threaten the authoritarian regime. In these instances greater tension can be seen between the GDG agenda and sovereignty.

Perhaps the most explicit way in which we see the ability of a small state such as Lao PDR to use global and regional institutions as a method of survival is through its membership of ASEAN. Lao PDR profits greatly from system of regional cooperation by obeying common norms such as those of transparency in disease control (Pholsena and Banomyong 2006:34). Lao PDR has calculated that in foregoing small amounts of sovereign decision making at this regional forum, it will receive financing and support from the regional counterparts to improve their disease control platforms. ASEAN is often referred to as a security community (Severino 2004, Acharya 2014, Khoo 2004). In military terms Lao PDR has developed a range of defence ties between the ASEAN states, such as border cooperation, intelligence sharing and joint exercises (Acharya 2001:146). Such a security community can also be seen evidenced for disease surveillance, in that ASEAN have developed, through regional institutions, cross border disease control, epidemic intelligence sharing and joint outbreak response to improve regional health security. Lao PDR as resource poor has understood that if it continues to comply with ASEAN and the requirements placed on it accordingly, then it can benefit greatly from its membership in materialistic terms including resources and technical support for a variety of infrastructure building developments, without having to compromise its sovereignty, as this is not the 'ASEAN way' (Goh 2003).

The benefits of membership of regional institutions can be extended to the global level. The very norms that have underpinned relations within security communities such as ASEAN could be extended to govern relationships with outside actors (Acharya 2001:166). These can be seen with Lao PDR's increasing involvement with a wider range of other actors, for example those which are funding disease infrastructure such as WHO, ADB, US-CDC and

other bilateral arrangements. In this instance, membership or involvement with these organisations far outweighs the option of going it alone. In this vein compliance with norms of GDG and the IHR (2005) core competencies can be understood in the same way. Lao PDR cannot afford to implement the requirements of the IHR (2005). However, it understands the considerable benefits that can be drawn from appearing to act responsibly and wishing to meet the requirements. If Lao PDR plays the game of appearing as a responsible sovereign as it has learnt from its membership to ASEAN since 1996, and continues to seek external help for its actions, then it hopes to receive the further financial resources it requires for implementation of the IHR (2005) and broader disease control initiatives. Additionally, as a state it will be held in high esteem by the international community, understanding the need for greater transparency and openness in global alertness and epidemic preparedness and thus seek the benefit of being in this position.

Active participation in ASEAN also offers Lao PDR greater power on the global stage, collective bargaining power and moreover equality amongst other states who comprise ASEAN (notably those of their regional powers, Thailand and China). As such, it is no surprise that Lao PDR is happy to accept the majority of norms for regional or global disease control, in order to appear as a responsible actor, and welcome in the donor dollars to improve public health infrastructure. Furthermore, being part of a regional grouping allows Lao PDR to protect its interests within multilateral institutions, which will not challenge its authoritarian regime too much. As highlighted by Acharya (2001:7), ASEAN remains largely an exercise in utility maximization without any sovereignty eroding or collective identity shaping impact (Acharya 2001:7).

Frameworks like ASEAN provide the perfect grouping in which Lao PDR is able to enjoy the benefits of international collaboration, without jeopardising their sovereignty or domestic government choices. An authoritarian government which had previously eschewed efforts for international law would only join such an institution if they knew that their organisation would not put their domestic politics under scrutiny (Abuza 2003: 172, 184). One of the standard operating principles of ASEAN is that of non-interference in the internal affairs of other states. Thus Lao PDR is able to enjoy the benefits of a collective bargaining power, and appearance of being a responsible sovereign without being restricted by entrance requirements. As such, domestic sovereignty takes priority when it comes to threaten the

existence of the LPRP or their authoritarian governance structure, and as has been shown through this chapter they only engage in such agreements when they do not challenge their domestic political processes.

6.8 Internal Sovereignty as Survival

As shown throughout this chapter, Lao PDR has presented itself as a responsible actor in the global and regional disease governance community. It has tried to make progress with the IHR (2005) core competencies, and any failures have been considered due to lack of capacity rather than ill will. Furthermore, this chapter has highlighted the ways in which Lao PDR has internalised, or at least appeared to internalise the norms of GDG (see chapter 2) such as a commitment to global health security and working collectively with a range of other actors for more effective surveillance and greater transparency. As such, the majority of empirical evidence suggests that Lao PDR has redefined their sovereignty in disease control to be malleable in order to ensure increased donor funding and LPRP/governmental survival.

However, despite these recent efforts to improve disease surveillance in Lao PDR, reliable statistics on rates of infectious disease remain relatively weak and major capacity strengthening is still necessary (WHO 2011c: 162). As stated by Lai, Kamradt-Scott and Coker (2013), the current national surveillance and containment capabilities in several Southeast Asian states may not be sufficient to prevent a rapidly emerging outbreak, and this rings true in Lao PDR. There remain considerable gaps in the national surveillance infrastructure, especially in ensuring comprehensive geographical coverage to identify cases in all areas, as well as doing so in a timely manner (Aledort, 2007 Briand et al 2011). Furthermore, Lao PDR is emerging from periods of political and economic instability and as such has limited resources to invest in health systems or to reform health care financing (Thome and Pholsena 2008, WHO 2012e). Although national health indicators have been improving steadily over the past three decades, and despite the efforts of the national authorities, they remain below by international standards, being some of the lowest in the WPRO region (WHO 2011c: 162). This includes compliance with IHR (2005) as evidenced in the WHO's analysis of competencies in surveillance and response, although the government of Lao PDR attempt to portray otherwise (WHO 2011b).

Fundamentally, one key area where Lao PDR is not acting as a responsible sovereign domestically is through its lack of universal health care and primary health facilities. As such, it is clear that Lao PDR prioritises its external sovereign responsibilities over that of its domestic sovereignty through provision of health security and facilities to its citizens. Although it appears to be a responsible actor, in order to secure international aid, it does so at a cost of the health of its citizens. Interestingly, the areas of public health which have considerable investment, development and progress against key indicators are the ones which have been funded or championed by other actors. Infectious disease control is one such area, where it has received considerable funding to develop a national infrastructure to manage disease outbreaks. However, despite this appearance of responsible sovereignty to the international community, this is the exact opposite of the reality, and there appears to be a continued gap between policy and practice. If Lao PDR were truly committed to improved health security for its citizens, it might be that it would prefer to show greater commitment to offering basic healthcare to its own people, through increased investment in health.

A further manner in which Lao PDR shows the importance of its sovereignty is the manner in which it negotiates with the range of actors involved in health provision within its borders. Lao PDR could be said to exemplify the adverse effects of multiple supranational initiatives (Calain 2007). It is difficult to imagine how the multiplication of parallel and poorly coordinated surveillance initiatives and its targeted funding will achieve much more than consolidating a fragmented inefficient and disruptive donor driven surveillance industry (Calain 2007). However, Lao PDR has fought back to control the influx of actors involved in disease surveillance, and to take charge of the direction and activities undertaken. It has established and control the sector working group (SWG) for health, chaired by Ministry of Health and co-chaired by WHO and the Embassy of Japan, which has been the core mechanism for effective coordination and cooperation in health, thus enhancing aid effectiveness (WHO 2011b: vii). Secondly, the Lao PDR government was instrumental in the creation of the Vientiane declaration in 2007 to establish effective chains of communication between the Lao Government and development partners, (WHO Country health information profile: 165), in parallel to an improved sector wide coordination between ministries, provinces, districts, villages and all partners. The main principles underpinning such an

initiative are self-sustainability and transparency, as illustrated by the following declaration [Lao PDR's approach to disease control is]:

“Self-promoting, self-strengthening before requesting for assistance. Through discussions and negotiations, obtain donors’ support in accordance with the real needs of our country, government’s policy and laws” (MoH 2011: 29).

What is evident in this declaration is that Lao PDR wishes to direct the terms of any engagement with other actors. As we saw in its involvement with bilateral actors, Lao PDR is only willing to accept international aid if there are not stringent conditionalities attached to it. The terms *‘self-promoting and self-strengthening... in accordance with government’s policy and laws’* are particularly pertinent and suggest that Lao PDR wishes to ensure the continuance of its one party state despite foreign interventions. As a small state which is economically weak, Lao PDR should be vulnerable owing to its dependence on foreign aid and development assistance, conversely Lao PDR in fact asserts its sovereignty as it remains in the driving seat of donor activities and coordination in the state. Lao PDR’s government systematically reminds non-state organisations and donor states that it will be at the centre of all activities, and whilst it is unable to provide the necessary public health provisions directly to its citizens, it will not be subject to lengthy conditionalities. Accordingly, sovereignty becomes more important to Lao PDR when the party rule is challenged. In these instances Lao PDR exhibits more traditional manifestations of sovereignty (that of Westphalian sovereignty) so as to ensure the longevity of its one party political system, without facing external pressure to reform.

6.9 Conclusion

This chapter started with briefly contextualising the political make up and health system in Lao PDR, to understand what health policies and practices may be in place as well as socio-economic factors which impact on provision of effective disease control. It showed that Lao PDR is somewhat of a political anachronism as it is still ruled as a one party authoritarian state. It highlighted that policy is made by the LPRP who then implement these policies through the executive and bureaucratic arms of government – although often there are considerable gaps between policy and practice. It also showed that weak governance and poor financial resources have left a lot to be desired with the health system in Lao PDR and

a large swathe of the population do not have access to primary health care. Moving on to examining infectious disease control, the chapter developed by illustrating the recent outbreaks of H5N1 which have affected the state and how these have spurred considerable interest in Lao PDR amongst the international community to improve surveillance and reporting infrastructure for fear of the global repercussions of pandemic influenza.

The next section of the chapter analysed the domestic infrastructure created in Lao PDR by the government since the mass interest in disease control capacity in Southeast Asia. It described the series of committees, institutions and policies which are in place for any outbreak to be reported from the district level to the highest organ of Government, the Prime Minister through the NCCDC. It also sought to show that through the imposition of a series of measures for early detection and rapid response to an outbreak, Lao PDR exhibits responsible tendencies in relation to GDG norms, through ensuring global health security and greater dedication towards surveillance and response. Lao PDR's compliance with GDG is also highlighted in the ensuing analysis of their activities to date to meet the IHR (2005) core competencies. Lao PDR has appeared to meet several of these requirements, although there are still considerable gaps, but these have been attributed to capacity issues, rather than political ill will.

The issue of reporting responsibilities under IHR (2005) is a good medium to summarise the core of this thesis, as there is a tension between political intent to the international community compared to action on the ground. Whilst Lao PDR has been keen to meet some of the core capacity requirements and report under IHR (2005) as quickly as possible, as well as keen to show progress with other indicators such as Millennium Development Goals this seems to contrast with the activity on the ground in offering healthcare to its citizens (Interview, Consultant, ADB, 8th April 2013). Externally it wishes to be a responsible actor keeping up with its sovereign duties to the international community in order to continue to receive the benefits of this, including increased donor dollars and avoiding being 'named and shamed' for lack of implementing global norms of disease control (Davies and Youde: 2013). However, it does not show the same responsibility to its citizens in the provision of healthcare, and therefore any compliance with IHR (2005) or norms of GDG appear to be to maintain good standing with international donors, rather than for altruistic benefits for citizens. Such a dichotomy between its appearance as a responsible actor on the global

stage compared with failings as a responsible actor domestically remained a theme throughout the chapter.

The second half of the chapter analyses this dichotomy through greater analysis of Lao PDR's engagement with the norms of global disease control, and its departure from these norms due to concerns of sovereignty and potential challenges to its one party state. It highlighted the range of actors Lao PDR collaborates with for disease control. In each of these examples Lao PDR appears to be positively compliant with the associated norms of collective action for surveillance and greater health security, as well as appearing to relinquish some of its state sovereignty to place these norms above sovereign control. This is then exemplified by a more detailed analysis of Lao PDR's involvement in regional and global governance arrangements, highlighting the benefits that the state receives from such arrangements, those of further donor dollars. As such, it might explain why Lao PDR is willing to manipulate its sovereignty to welcome in the raft of other actors.

However, the final section of this chapter shows another, more traditional manifestation of sovereignty in Lao PDR. Although Lao PDR has welcomed considerable investment in disease control from multiple actors, it has yet to make a significant commitment to universal health coverage. As such, there is a considerable percentage of the population who are unable to access the most basic of health care. If Lao PDR were really a responsible actor and wanted to maintain health security for its citizens, it would be making a greater attempt to address this shortfall. This shortfall also poses a greater threat to global health security, and the ideals of GDG, as without a functioning primary health care system, index cases of an outbreak may be overlooked, and any potential pathogen may be missed. Furthermore, sovereignty is also a key issue when there is a potential threat to the LPRP and its authoritarian rule. The work of Lao PDR alongside international and global counterparts in disease control is only permitted when Lao PDR does not feel that its governance structures are being challenged, or there are few, if any, conditions attached to reform its electoral process.

Returning to the central research question of this thesis, the case of Lao PDR offers yet another understanding of surveillance and sovereignty and the tensions with GDG. Unlike Thailand and the UK, Lao PDR does not have a functioning surveillance system, and is unable

to offer a strong internal sovereign role to its citizens, not providing adequate health provisions or freedom from the threat of disease. However, despite weak internal sovereignty, Lao PDR displays strong compliance with the norms of GDG externally, internalising the aims of globalised disease control and complying with IHR (2005) to the greatest extent that they are able to with their limited resources. As such, it appears that Lao PDR is willing to cede its external sovereignty in order to meet the requirements of GDG. However, whilst such action might suggest that Lao PDR has internalised the fourth norm of GDG, that of placing global health security above state sovereignty, this may not be the case. By complying with GDG in this way, Lao PDR appears to be a responsible actor, and thus welcomes external donor funding and assistance to strengthen its provision of disease control internally. As such, this shows a further interpretation of sovereignty, playing a tactical game with relinquishing its external sovereignty in the face of GDG in order to strengthen its internal sovereignty. This manifestation once again supports the framework of internal/external sovereignty selected for analysis in this thesis, and shows that in both instances the manifestation of sovereignty is once again different to that of Thailand and Lao PDR, confirming that sovereignty is context specific and malleable. This case also highlights that not all interpretations of sovereignty challenge GDG, in this instance the interpretation of sovereignty supports the normative project of GDG, yet the state is still able to maintain a decision making role in prioritising its sovereign responsibilities.

As this chapter has sought to show, like the UK and Thailand, Lao PDR interprets its sovereignty in its own way for its own priorities. Sovereignty is manifested differently here to the other case studies, and challenges the normative agenda of GDG in a different way, based on the responsibilities that Lao PDR feels towards maintaining a strong one party authoritarian state. This helps to construct the overall conclusions of this thesis that sovereignty is not a constant, but a dynamic process which changes depending on context (such as in the three different states). It is this dynamic and socially constructed nature of sovereignty which will be analysed in the conclusion in greater detail as this thesis seeks to show that sovereignty is what states make of it. This understanding of sovereignty will be drawn together and bring in the key themes from throughout the empirical data to make some assertions about sovereignty and the state of global health more generally.

Chapter Seven: Conclusion

7.1 Introduction

This thesis started by highlighting a series of infectious disease outbreaks that the world has been subject to in recent years, most notably that of EVD. In an effort for symmetry, returning to the EVD crisis provides an outbreak ‘in action’ where a number of the key findings of this thesis can be witnessed. Initially, this thesis has sought to highlight the multi-actor stakeholder engagement in GDG that has become increasingly more integrated in the post-SARS era. The EVD crisis started out as an outbreak managed at the local level by local health facilities, traditional healers and grassroots NGOs. As per the IHR (2005), when rumour reached the Ministry of Health in Guinea, it investigated and then notified the WHO of the outbreak. This shows that in the first instance, Guinea acted as a responsible sovereign and fulfilled its ‘external’ sovereign responsibilities that it has to the global community. Yet, simultaneously, Guinea had failed to meet up to its ‘internal’ sovereign responsibilities of providing freedom from the threat of disease to its population, and when the outbreak had struck, a failure to provide adequate health provision to manage the surge of hospital requirements that that disease necessitated. Even during the first stages of the outbreak, the tension between variations of understanding sovereignty and the governance of an outbreak of infectious disease was evident.

Yet, this notion of sovereignty in managing EVD became ever more complex. Firstly, the WHO acted commensurate with its assessment of the risk that the outbreak posed, deploying epidemiologists to the field for analysis. This action challenged traditional concepts of state sovereignty as the Guinean state allowed a non-state actor, the WHO, into their sovereign role of delivering public health infrastructure. However, the involvement of external actors did not stop there. Guinea, alongside Sierra Leone and Liberia, rapidly became overwhelmed by the outbreak and were unable to manage the response on their own. A range of actors subsequently stepped up to support the states in the outbreak. This ranged from international NGOs to UN agencies and even other states. Such activity highlights two further key points for summarising themes developed in this thesis:

Firstly, the involvement of these diverse actors has shown GDG in action. Following Ruger (2009) it has shown this highly chaotic system in action, highlighting divides within the GDG

framework, tensions between actors, as well as the emergence of natural pairings of actors (Kamradt-Scott et al: 2015). Yet, the efforts of these considerable actors confirms the discussion put forward in chapter two, that a considerable number of actors are working at a global level, and in collaboration with each other through the GDG framework to combat what they perceive to be a collective problem. Notably, this has included both donor and aid recipient states, which have maintained a dominant position in the disease control mosaic.

Secondly, there has been considerable involvement of Western states in the response to EVD. This has ranged from technical advice, financial contributions to a more involved response of the US and UK on the ground in Sierra Leone and Liberia. This not only reconfirms the role that states play in the GDG mosaic but, furthermore, it suggests something further about sovereignty. The response that these states exhibited in the EVD response was firstly to prioritise their own national security. Secondly, to cement their role at the centre of any governance framework, and only then to save lives from the threat of EVD. This is different to aid recipient states of Sierra Leone, Guinea and Liberia who were willing to cede the relevant parts of their sovereign disease control infrastructure to other actors to bring the outbreak under control. It might be that they recognised such actions as exalting their sovereignty as they wished to not only provide internal security to their citizens, but externally to act as a responsible sovereign and welcome international support. As such, what can be witnessed through the EVD outbreak is that sovereignty means different things to different states when they are confronting an outbreak of infectious disease. This mirrors the key findings from this thesis and provides context to answering the central research question:

To what extent do state conceptions of surveillance and sovereignty challenge the framework of global disease governance?

This thesis has shown through analysing surveillance practices within the chosen three states, that sovereignty is a dynamic concept, and does not entail the same attributes and meanings at all times. Rather, sovereignty, when analysed in the framework of disease control, represents different meanings to different states, at different times and facing different disease threats.

7.2 Summary

Accordingly, this thesis has highlighted the tensions that exist between GDG and sovereignty. Whilst the problem of this interaction is not newly identified, and has been considered by academic literature (Dodson, Lee and Drager 2002, Stevenson and Cooper 2009, Heymann 2006, Kamradt-Scott 2010, Youde 2011), this thesis offered a nuanced analysis as to how this interaction has played out both during times of disease crises and in preparing national surveillance and response infrastructure to protect against future outbreaks.

Chapter two discussed the GDG framework. It showed how in the post-SARS era there has been increasing collaboration between a range of actors to limit the spread of infectious diseases globally. States understand that they can no longer act independently, as a disease in one location today, can be anywhere else in the globe tomorrow. Therefore, in order to secure their own populations and economies, states must act globally to halt any disease threat at the source. However, it not just other states that they have begun to work with, but non-state actors such as International Organisations and NGOs simultaneously. This can broadly be referred to as GDG. Using Youde's (2012) defining factors for global health governance, it drew parallels with GDG specifically in order to clarify how GDG can be understood. This focused around four key attributes: 1) that the framework must focus on factors that cross geographical boundaries, such as infectious disease control, 2) that any response is multi-sectoral and multi-disciplinary in its activity, 3) that the framework is based on the implicit understanding that no single state has the capacity to respond to international disease emergencies and 4) that the success of any governance framework is based on transparent and accountable systems, which actors are expected to adhere to. Through analysis of a series of actors who comprise the GDG mosaic, these attributes were elaborated upon, and shown as concrete examples of how actors can work together through the GDG framework to combat this common threat.

The second half of this chapter assessed the two means by which GDG has been achieved: those of legislative and normative changes to understanding of global disease control. The legislative changes have centred on the IHR (2005). Whilst this thesis has not sought to analyse these in particular detail as this has been done elsewhere (Kamradt-Scott 2015),

their importance is paramount to understanding the GDG landscape. Importantly the IHR (2005) reflected the global health community's contemporary understanding of health, disease and obligations to one another (Youde 2012: 128). The IHR (2005) themselves highlight tensions between international law and state sovereignty. The challenges faced between international law and sovereignty are well documented (Koh 1997, Chayes and Chayes 1995, Slaughter 1993) and the IHR (2005) provides no exception to this tension, as several articles of the regulations can be seen to contrast with traditional understandings of sovereignty. This includes permitting non-state actors to report outbreaks occurring within sovereign borders, which could potentially coerce states into reporting sooner than they may wish to. Further, by implementing international legislation on what disease control infrastructure should contain at the domestic level, the WHO act in direct contradiction to the Westphalian ideal of non-intervention of external actors in domestic affairs (p.91). Consequently the argument moved on to suggest four normative changes which have appeared in recent decades which help to explain why states have been willing to reconceptualise their sovereignty to limit the spread of infectious disease. 1) The first of these normative shifts has been a globalised understanding of the need to ensure global health security, and that infectious disease can have an effect on all states' populations and economies. 2) States understand that there is a need for collective action for greater surveillance and increased transparency as to their pathogenic status. 3) States have embraced the need for greater reporting of outbreaks. 4) The final norm that can be witnessed in GDG is that states should place these norms of disease control above their own state sovereignty. This in essence represents the crux of the issue which this thesis problematizes: do states abide by such a norm, and do they place the norms of GDG over that of their own sovereignty? This thesis suggests that answering such a question depends on the state's understanding of sovereignty and the context in which they exhibit their sovereignty. The following four chapters analyse just this. Chapter three digs deeper into what is meant by sovereignty, and what can sovereignty entail, with chapters four, five and six providing case studies of how sovereignty has been interpreted, and whether it has been placed behind the norms of GDG.

As shown at the start of chapter 3, sovereignty has been seen as a unified concept in global health literature to date. Whilst this may represent lack of development in this new area of

research, rather than those academics believing that sovereignty is an indivisible concept, this thesis shows the many interpretations of sovereignty. By taking the reader through a series of different understandings of sovereignty, this chapter shows that sovereignty has never entailed just one thing, and it has always been comprised of a series of tenets, depending on context. This began considering the traditional understanding of final and absolute authority (Hindley 1966: 26), principles of non-intervention (Brown 2002: 35), equality amongst sovereign states (Jackson 2007: 6) and sovereignty's indivisibility (Grotius in Keene 2002: 44). Following on, it considered the changes posed by globalisation and that sovereignty could be analysed as a divisible entity. This included internal / external sovereignty (Lake 2003), where a difference can be detected by a state's domestic affairs and its external actions in the international arena. A further division could be Ghani et al's de jure / de facto sovereignty (2005), differentiating between the legislative position of a state as a legitimate international actor, and their actual ability to provide citizens with what is 'required' of them as a sovereign. Krasner (1999) divided sovereignty into four gradations (domestic, Westphalian, international legal and interdependence). Despite this breakdown, Krasner (1994: 24) argued that no state has ever had a full complement of these tenets of sovereignty, and that a loss of one tenet does not imply an erosion of the others. As such, sovereignty is a divisible concept, and has different manifestations in different contexts. Consequently, this chapter considered a constructivist reading of sovereignty, highlighting the inherently social nature of sovereignty, in all its divisions, whose existence and content depends on recognition by and reproduction by others (Reinold 2013: 1).

Following this constructivist thought, one tenet of sovereignty appeared to remain constant between all interpretations in the theoretical literature and the case studies discussed: that norms are required to regulate the interaction between sovereign states. This remains a key issue throughout the whole thesis, and pertains to the norms of GDG which states have adopted into their disease control practices. As stated, perhaps the key norm for discussion is that of sovereign responsibility ensuring global health security over state priorities. Chapter three developed further analysis of how this normative understanding of sovereignty as responsibility manifests itself. Using the work of Deng et al (1996), this chapter considered how sovereignty has moved beyond simply being a right conferred to states (however this may be divided or considered), to now entail a sense of responsibility

that states must maintain to be considered responsible actors globally. This represents the most beneficial understanding of sovereignty for public health. If states truly understand their responsibility to their own citizens and the global community to limit the spread of disease, then they would take the requisite measures to ensure that diseases do not spread. However, as can be seen, this is not always the case, as states manage this responsibility alongside a series of other domestic responsibilities that they face. Responsibility is also an inherently social and relational concept, and depending on the context, states will choose to prioritise certain responsibilities that they have to other domestic affairs over their responsibility to ensuring global health security.

Accordingly, chapters four, five and six offer empirical examples analysing the tensions between sovereignty and the norms of GDG. They show that states' interpretation of sovereignty is not a unified concept but is context specific in UK, Thailand and Lao PDR depending on the situation and time. Chapter four considers the UK, which exhibits the most traditional understanding of sovereignty of all case studies. Most of its work in disease control is managed domestically, and there is not a considerable role for non-state actors within the internal disease governance landscape, which is considerably different to Thailand and Lao PDR. This suggests that the UK posits its sovereignty and ideals of non-intervention above that of GDG, yet, simultaneously, the UK has embodied a number of the norms required by GDG, including prioritising global health security, transparency with its viral status (for the most part) and have met the requirements of the IHR (2005)⁶¹. This case suggests that there is not a direct correlation between relinquishing sovereignty and internalising the norms of GDG, rather the UK is redefining how it understands sovereignty to include tenets of GDG. It appears to do so, in for greater positioning in the GDG framework, but to ensure the security of the internal sovereignty through protecting its population and economy from the threat posed by disease. By complying with the normative and legislative changes to global disease control, the UK is in a privileged position whereby it can access greater information about outbreaks occurring, to be able to protect itself where possible.

Thailand, as discussed in chapter five, shows some similar traits to the UK in its interaction with the GDG framework. Predominantly, both consider the threat posed by infectious

⁶¹ This is based on their own self-assessment of their compliance.

disease as a national security threat, and fear ensuing implications for their economies. This poses a tension with the norms of global disease control, which extols the focus on the *global* security threat, rather than to individual nations. However, the continuing focus on its own national interests in interpreting their normative and legislative requirements of the GDG framework shows Thailand offers a different understanding of sovereignty. Thailand understands that its domestic priorities must take precedence over any activity under the sovereignty as responsibility rhetoric. Interestingly, Thailand has developed an over-arching role in regional disease governance. Whilst much of this regional activity is reminiscent of the normative goals of GDG, on closer inspection, its activity in this arena furthers two main purposes. Firstly, it positions Thailand in a central role, with disease privileged information, so that it can glean further information about pathogens circulating regionally, enabling the state to protect its own security interests more quickly. Secondly, this activity serves broader strategic interests. Being at the centre of this regional governance framework allows Thailand to scale up some sovereign activities to the regional level, such as its public health infrastructure, epidemiology training programmes and role in directing international resources for disease control. This regional activity may, in fact, represent the greatest rejection of the norms of GDG, as Thailand prioritises sovereign action at the regional instead of global level.

Finally, Lao PDR offers a further example of the interaction between the state and GDG, and a differing interpretation of sovereignty. Lao PDR appears to be the most compliant to the norms of GDG, and appears to forego parts of their sovereign activity accordingly. Chapter six illustrates the manner in which Lao PDR has welcomed in a series of actors to manage disease control on their behalf, including NGOs, development banks, international organisations, and even other states. The state appears to have done so as it understands the importance of global health security and transparency and is willing to put the normative agenda of the GDG framework ahead of its sovereignty, embodying the understanding of sovereignty as responsibility. However, further analysis highlights that whilst this may be how it is framed, Lao PDR actually exhibits a more complex understanding of sovereignty. Externally, it wishes to appear as a responsible sovereign actor, abiding by the norms and legislation of GDG. This is to ensure continued donor dollars to support public health development, as well as other donor agreements. Yet, a

contradiction exists between this external responsible sovereign and their internal sovereign responsibility. Lao PDR have failed in its responsibility to provide health care and freedom from disease to its citizens, leaving its population exposed to a series of diseases. This shows a further nuance to the tensions between sovereignty and disease control, as in Lao PDR there is not even a unified approach to sovereignty and what it entails.

7.3 Key Findings

7.3.1 Sovereignty

This thesis has not intended to offer great contributions to the study of sovereignty per se. Its aim was to analyse existing sovereignty framings in the context of GDG, in an effort to make a contribution to global health literature. One of the key gaps identified in global health literature to date was that global health governance had not been explored in conjunction with sovereignty in any meaningful way. Several academics, such as Davies, Rushton and Kamradt-Scott (p. 78) have used the concept of sovereignty, and cited sovereignty as a barrier to full compliance with the norms of GDG. Yet, they use this terminology as a holistic concept, implying that there is one meaning of the concept, which is unambiguous and globally understood. However, sovereignty is not exogenous to the system of GDG, but it finds new meaning in this health context, which is produced through interaction between states and non-state actors at the international and global levels. Through the three case studies, this thesis has shown that sovereignty should not be considered as a holistic concept or analytical given in GDG. Each of the three case studies has shown that sovereignty is a divisible concept and, regardless of how this may be divided, each of the states has interpreted their sovereignty in different ways at different times for different purposes. Reflecting on constructivist arguments, sovereignty, when analysed in correlation with global disease control, is a dynamic construct whose meaning is context specific and continually evolving to reflect the challenges that sovereigns face from globalised frameworks such as GDG. This thesis has added greater nuance to the concept of sovereignty in the context in which it appears, rather than simply as using it as a convenient construct used to justify inactivity or challenging GDG. Furthermore, this thesis has shown that there is no one definition of sovereignty, and this research has not sought to provide

one, to re-affirm that it should not be taken as an analytical given as it has been in global health literature to date.

This thesis has also shown that Fidler's (2004) optimism of a post-Westphalian framework, wherein states place greater importance on the norms of GDG over that of their own domestic commitment and priorities, has not occurred. There is not a mutually exclusive relationship between the concepts of GDG and sovereignty whereby for a state to internalise the norms of GDG it must relinquish parts of its sovereignty. Rather, what the empirical evidence suggests is that sovereignty, as a dynamic concept, simply redefines itself in relation to GDG. This thesis, therefore, agrees with Price-Smith (2009: 154) and Hoffman (2010: 514) that the arrival of this post-Westphalian era has been over stated and that sovereign interests continue to override the duty to report. It also takes the position of Ricci (2009) suggesting that global health literature to date has overemphasised the extent to which globalisation and methods of global governance have seized power from the state. Through analysis of sovereignty and disease control, this thesis asserts that states remain at the centre of the GDG process, and have been vital in championing the normative shift to GDG. Although the central position of this thesis has been to analyse states, and therefore the perception might be biased, states have been shown to engage with GDG when it suits them, and to reject the norms and legislation when it does not concur with their domestic priorities. This ability to decide when to engage and when not to engage in this governance framework highlights the lasting pertinence of the state in global disease control.

Moreover, it would not be too much of a stretch to assert that GDG would not exist to the extent that it does if states felt that their position at the centre of their own sovereign disease control activities were being challenged by GDG. Quite simply, if states really believed that their sovereignty would be severely challenged by the WHO or by other actors in the GDG landscape, they would not have accepted the IHR (2005), nor would they have internalised the norms associated with global disease control, nor would they allow any third party actor to be involved in their domestic disease control. With a more analytical reading of the normative and legislative changes of the GDG framework, it can be seen that whilst GDG may challenge some areas of state sovereignty, there also continue to exist considerable allowances where states are able to emphasise their own sovereignty. This includes the ability that states have to deny outbreaks which are occurring and the right

that all states have to reject any help offered to them from the WHO or other actors for disease control. Such allowances may have allowed states to feel comfortable that the IHR (2005) and the associated norms do not directly challenge their sovereignty, or rather simply they are redefining what their sovereignty means, with the state remaining the central actor in GDG.

Another key finding has been to show that being part of the GDG framework requires states to exercise a certain kind of sovereignty, differing from any traditional understanding of sovereignty or the Westphalian approach to sovereignty (Fidler 2003). Each of the cases highlight that there is both an internal and external face to sovereignty (Lake 2003), and that the actions states pursue to exert their sovereignty differs depending on which of these faces they are focusing on and where their self-interest might be. States may show considerable compliance to their external sovereign role, through meeting the commitments of the IHR (2005) and internalising the norms of GDG, and yet fail to fulfil their sovereign obligations to their populations with the provision of health. In this instance, sovereignty is seen to be a contested concept and wholly divisible.

Understanding sovereignty in these terms has also highlighted the benefit of a constructivist reading of the state in GDG. What has been shown is that sovereignty is not an objective given, as suggested by the more traditional understandings of the concept, but that it is constructed by interactions between states and other actors who can add meaning to the concept. Fundamentally, sovereignty does not exist independently of its being socially observed and interpreted. The meaning of sovereignty has become apparent through states' understanding of behavioural expectations of each other to include engagement with norms (such as those of GDG), and through their increasing acceptance that sovereignty entails a certain level of responsibility.

One tenet which remains as a constant throughout all interpretations discussed is that there are a series of norms which exist to regulate interaction between sovereign states (and non-state actors) at the global level. States can be involved in the creation of such norms, as can be seen in the case of the UK in GDG, or can simply be shown to follow global norms diligently, as Lao PDR has done, yet norms still remain a key part of what sovereignty entails.

Responsibility is one of the key norms that has been examined throughout this analysis of GDG.

This framing suggests that sovereignty is not just a blank check, to be interpreted as each state may wish (Haass 2005). The three states examined have shown that they understand that sovereignty increasingly entails a sense of responsibility. However, this norm of responsibility is not uniform, and states understand their responsibility to their own populations and the global community in different ways. As stated by Davies and Youde (2013) GDG rests of states adopting a norm under which they feel an obligation to their citizens and other countries to engage in active disease control. This thesis has shown that these global responsibilities include meeting the requirements of the IHR (2005), as well as internalising the norms of GDG. These include ensuring global health security, collective action for greater surveillance and response improvements, increased transparency, greater reporting of outbreaks, and where possible, to prioritise these norms over sovereignty, although this latter one was not internalised by any of the states examined. These norms were internalised for the most part by Thailand and Lao PDR, yet their global responsibilities for promoting GDG are challenged by competing domestic responsibilities such as the economy or other influential groups.

In each of the case studies, domestic responsibilities have won out against a complete acceptance of all of the global responsibilities for disease control. As such, GDG has not overridden the concept of sovereignty. The reasons for the prioritisation of domestic activities can be attributed to self-interest, with states placing economic stability and strategic goals ahead of acting responsibly and risking the domestic consequences. Self-interested domestic behaviour remains the dominant norm for the sovereign state in disease control, but what defines this self-interest is not static, but changes depending on the context (Wenham 2015b). Enemark (2009) reminds us that the pursuit of national self-interest can hinder the international cooperation of states necessary to address a transnational health threat. For the UK, this is the desire for remaining a leader in global disease control, and ensuring their own national health security. For Thailand, the key domestic priority rests on economic stability and ensuring that the poultry industry is not affected by any disease outbreaks, and for Lao PDR, the dominant behaviour focuses on ensuring donor dollars continue to flow in, supporting development in health sector and

more widely. As such, each state's understanding of sovereignty is impacted by the interaction with the GDG framework, but also by diverse underlying assumptions about sovereignty and responsibility, based on different domestic political priorities. The challenge that remains for the future of GDG is to seek policies, norms and strategies which strike the delicate balance between what is expected of the state in exercising sovereign responsibilities associated to its people and those responsibilities it holds to the global health community such as the normative and legislative requirements of GDG.

7.3.2 Global health security

This thesis has also contributed to the study of global health security, highlighting the extent to which states understand the threat posed by infectious disease, and their methods for preparing to minimise any potential damage. Although, as stated (p.13), this thesis is not primarily about security, but as this concept has been inexplicably linked to the key issues of disease control and GDG some conclusions can be made.

Ensuring global health security has been a key norm of GDG (p.64), and perhaps the one which has been shown to have been internalised to the greatest extent by each of the three states analysed. The UK lists global health security as one of its three action areas in their pioneering *Health is Global* framework (2011). Furthermore, Thailand has established a designated NHSO and both Thailand and Lao PDR's experience with recent influenza outbreaks have shown that these states view disease as a security threat. Each state has understood the need to work globally to combat these global of threats, and through their compliance with the IHR (2005) and the norms of GDG, each state has shown that they want to ensure global health security to some extent.

However, upon greater analysis, ensuring global health security may be a convenient rhetoric for states to use to ensure greater compliance with the IHR (2005) and encouraging the norms of transparency and greater reporting of outbreaks. Whilst they all may refer to disease as a global threat, the attributes that these states show in practice are much close to considering infectious disease as a national security threat, rather than a global security threat. Instead of taking a globalist approach to disease control (Davies 2010: 23), whereby the referent object of the security threat is the global population, or the individual person affected by an outbreak, these states have been shown to take a statist approach to health

security. They understand the state to be the referent object of the threat posed by disease, and exhibit a national security understanding of disease control. This is seen in the preponderance to be concerned about their socio-economic stability as opposed to the populations themselves. In examining Lao PDR's focus on acting responsibly in the eyes of the global community to ensure continued funding streams, and yet its failure to prioritise the health of their own citizens with whatever resources they may have, such an approach can be visibly understood. Similarly, Thailand's focus of its disease control efforts in border regions and the UK's actions during the EVD outbreak, where a considerable focus was placed on screening procedures at UK airports to detect those infected travelling into the UK are both further manifestations of this national security approach to disease control. Both of these activities are known to be flawed from a public health perspective due to the failure to take into account incubation periods of disease and the ease at which those infected could take measures to be undetectable (Bogoch 2014)⁶².

This led to a consideration of a further question: why, if states exhibit traits suggesting a *national* security approach to disease control do they continue to use the rhetoric of *global* health security? Global health security appears to be a useful tool whereby states can continue to encourage transparency and open reporting of outbreaks at the global level amongst their counterparts, which further strengthens states' own national security. A state may be less willing to share information about pathogens circulating within their territory if they thought that the sole purpose of such an effort would be to strengthen the national security of a neighbouring or rival state. Yet, by using the language of global health security, this encourages transparency and data sharing for the global good. This is reminiscent of the UK's adoption of the language of global public goods to justify its action in global health (p.147). States appear to be willing to contribute to ensuring global health security, in the hope that other states will do likewise. Similarly, by using the language of global health security, and embodying the norms of GDG, all states can appear to be acting as responsible sovereigns, and therefore enjoy the benefits within the global community for acting in accordance with these agreed understandings of global disease control.

⁶² This can include taking paracetamol to lower a fever so it is not picked up by scanners

7.3.3.Global Disease Governance

This study has been able to draw some conclusions about the framework for disease control. Considerable analysis was given to the actors involved and the structure of GDG (p.41). However, certain traits of GDG became apparent which were not considered before. Firstly, GDG is now a global framework, and all states studied have adopted at least parts of the normative and legislative requirements contained within the understanding of GDG. Although there is variation between the UK, Thailand and Lao PDR as to what extent the normative agenda and IHR (2005) have been internalised, there seems to be commitment to two of the norms of GDG, ensuring global health security and increasing transparency between states and the WHO regarding disease outbreaks. Davies (2012) and Kamradt-Scott and Rushton (2012) have similarly identified this norm of reporting as having been increasingly recognised. Anecdotal reports suggest that there have been considerably more reports to the WHO of disease outbreak since the introduction of the IHR (2005), suggesting that states have internalised the norm of greater reporting, as well as increased surveillance infrastructure to be able to detect the outbreaks in the first place (Interview, Epidemiologist, WHO, 21st September 2012).

However, a further trait of GDG has become apparent through this thesis, which is the skewed agenda of GDG. The GDG framework, as seen in the empirical chapters of UK, Thailand and Lao PDR, has highlighted the Western centric nature of global disease control activity. Considerable focus has been placed upon diseases which may pose pandemic potential⁶³. The UK, similar to other Western states, has placed pandemic influenza as a high risk on the national risk register, and this seems to be a key focus of its global work. Similarly, a considerable portion of the work of the MOPH in Thailand and the MOH in Lao PDR, driven by donor funding, has been in the areas of avian and human influenza. Yet, HIV/AIDS is the highest cause of death by infectious disease in Thailand (Porapakkham et al 2010), and classic diseases of poverty (cholera, diarrheal diseases, dengue) provide the highest mortality in Lao PDR.

As such, the GDG agenda is disproportionately skewed towards infectious diseases that pose a threat to Western states, focusing on the threat that a particular disease may pose to their

⁶³ This has focused on ILI and pandemic influenza, although Western states have been keen to allow a broad definition to include any potential emerging pathogen, or any outbreaks of concern, such as EVD.

citizens and their economies (Enemark 2009). Though such a hierarchy of disease, a binary divide appears between those diseases that appear to be a threat, or pose a transnational risk, and a host of other diseases. This includes both non-communicable diseases such as diabetes or cancer, but perhaps more importantly a range of diseases of poverty that affect poorer states that are unable to provide adequate health provision for their citizens, such as diarrheal diseases or neglected tropical diseases. This latter group is notably excluded from the GDG agenda, to the detriment of over a billion sufferers (Collier 2008). However, GDG is a Western construct, which has been developed by global health leaders and norm entrepreneurs predominantly in Western states (Kamradt-Scott 2010). Accordingly, GDG champions have focused on diseases which affect their states directly. It would have been unlikely that such momentum for change to the disease control landscape would have occurred had it been developing states collaborating together to combat neglected disease. This is not a new finding for GDG, as Rushton (2011) highlights, it should be no surprise that a global system designed to protect states from disease privileges the protection of the most powerful states in the international system. Yet this thesis has contributed to this understanding of GDG, by adding three further case studies for how the agenda appears to focus on areas of priority for Western states.

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Appendix A Initial Research Interviews: Questions.

Technologies

1. Which technologies the WHO are using?
2. Are these global, regional or incident based? (Do they have data etc.)
3. Why these?
4. Who makes the decision about which technologies are being used and why? E.g. Effectiveness? Cost? Usability? Recommendations by member states?

Actors

5. How do these private actors relate to the WHO/state? Do they interact directly? Any issues with the privatization
6. How do regional offices of the WHO involve themselves with these actors?
7. Which part of the WHO is involved with the decision making / use: Secretariat ,WHA, working groups?

Relationships

8. What is level of collaboration between the WHO and these providers
9. Do you know if states are engaging directly with these providers, or only through the auspices of the WHO?
10. Whether member states have been happy to engage with the WHO and these providers or has there been a fractious relationship emerging?
11. Have some states have been more compliant than others etc.?

Coverage

12. What is the difference between coverage / reporting from different regions globally, or is it similar regardless of location?
13. Are there weak spots in these surveillance systems where the WHO is taking extra measures to monitor outbreaks?

Use of Technology

14. Are there certain disease search terms that are used? If so, what? Which are prioritized?
15. From the information received from the internet based providers, how does it decide what to act on and what not? What is the next step from the initial alerts?
16. What is the margin of error, how effective/ reliable are these technologies?

General

17. Are relationships between the WHO and member states changing as a consequence?
18. Has the introduction of these disease surveillance methods led to further reporting of disease outbreaks?
19. Does the WHO views these services as beneficial, and will the WHO continue to use them, encouraging member states to use them also?
20. Is the WHO part of a feedback loop to the technologies to improve them / mold them in a certain way?

Appendix B PhD Project Outline

The purpose of this PhD thesis is to examine the impact of digital disease surveillance systems, and how they are impacting on a state's surveillance practices, and the state's sovereign control of information sharing.

With the revisions to the International Health Regulations (2005), emerging forms of infectious disease surveillance, such as the use of HealthMap, Biocaster, ProMED, Google Flu and MediSys are increasingly moving the surveillance of infectious disease away from the auspices of the state to the WHO and private organisations. This thesis seeks to:

- Determine whether states are using such technology and how it is viewed / understood by Ministries of Health;
- Understand the implications of this technology in political terms;
- Understand the relationship between states, the WHO and these disease surveillance providers; and
- Examine the difference of usage of these technologies between developed, middle income and less developed states.

This thesis will use a case study approach involving three state case studies to understand whether usage, take-up and opinions of non-state digital disease surveillance are consistent between states and between diseases. It seeks to understand what role digital disease surveillance can play in the global health landscape and to provide analysis on the engagement between these non-state actors and sovereign decision making. Finally, this thesis seeks to explore how to classify these technological actors, whether they are civil society actors, private actors, a blend of the two, or a new type of actor entirely.

The PhD research project is funded under the Aberystwyth Postgraduate Research Scholarship and is being undertaken at the Centre for Health and International Relations, Department of International Politics, Aberystwyth University. The PhD project is jointly-supervised by Professor Colin McInnes (cjm@aber.ac.uk) and Dr Simon Rushton (sbr@aber.ac.uk).

Your Involvement:

You have been asked to participate in this research project as you have been identified to be an expert in your field and on the basis of your involvement in disease surveillance and/or health technology at the local, national and/or international level.

I would ask that you be as open and frank about your thoughts, views, and opinions as you feel you can. I would also ask that you be as detailed and/or precise in your responses as possible as this will influence the research findings.

You can expect to be treated with courtesy and respect at all times. Participation in the interview process is wholly voluntary and you can opt to answer or not answer any of the questions posed at any point during the interview process. For purposes of accuracy, I aim to sound record all interviews which will then be fully transcribed. Formal permission to record interviews will be obtained from each participant either through written (ideal) or verbal consent. If you wish not to be recorded, with your permission I will write detailed notes during the interview. Interview transcripts will be analysed and, where consent is given, quotes may be used in publication outputs. If you do not wish to be cited directly, we may ask to use quotes without direct attribution. If, however, you do not wish to be cited at all, either directly or anonymously, then please advise accordingly.

This project complies with Aberystwyth University Template for Research Involving Human Tissue or Participants

Appendix C Interview Consent Form

Project title: Disease Surveillance, Modern Technology & Sovereignty

Interviewer's name and contact details:

Email:

I have read the information sheet and understand what is required of me to take part in the interview. My questions concerning this study have been addressed by the researcher identified above.

I understand that I can withdraw from the interview process at any time I wish without having to provide any explanations.

I agree to be interviewed and the interview to be recorded.

Yes / No

I agree to be interviewed and the interviewer takes notes only, without recording.

Yes / No / Not Applicable

I give consent that my responses may be quoted in the research described above.

Yes / No

I would like to receive a synopsis of the research findings from the researcher.

Yes / No

Name:

Address or Email:

Signed:

Dated:

Appendix D: List of Interviews

List of Interviews

Pasakorn Akanasewi, Director of Disease Control, Ministry of Public Health, Thailand, 1st April 2013

Thidarat Anurat, International Health Officer, Ministry of Public Health Thailand, 20th March 2013

Yin Myo Aye, ProMED Mail Moderator, 16th March 2013

Henry (Kip) Baggett, Lead US- GGDER, US-CDC, 26th March 2013

Larry Brilliant, Chairman, Skoll Global Threats Foundation, 21st October 2012

John Brownstein, Founder, HealthMap, 16th February 2013

Brent Burkholder, Border Health Coordinator, WHO Thailand Country Office, 23rd April 2013

Sean Casey, International Medical Corps, Skype Interview, 3rd March 2015

Gail Carson, ISARIC, 5th December 2012

Nyphonh Chantahkourmane, Global Fund Office, Ministry of Health, Laos, 8th April 2013

Stephanie Chisolm, Health Protection Agency UK, 24th September 2012

Malinee Chittanganpitch, Ministry of Public Health, Thailand, 20th March 2013

Nigel Collier, Founder, BioCaster, 18th February 2013

Nguyen Cuong Quoc, ProMED Mail, 23rd March 2013

Vincent De Wit, Health Director, Asian Development Bank, 2nd May 2013

Pat Drury, Global Outbreak Alert and Response Network, World Health Organization, 19th September 2012

Barry Evans, Respiratory Disease Surveillance Health Protection Agency UK, 24th September 2012

Erika Garcia, Technical Officer, Global Alert and Response, World Health Organization, 21st September 2012

Noel Gill, Lead HIV & STI, Health Protection Agency UK, 24th September 2012

Max Hardiman, IHR Lead, World Health Organization, 21st September 2012

David Heymann, Chair, Health Protection Agency UK, 14th January 2013

Jane Jones, IHR Coordinator, Travel and Migratory Health, Health Protection Agency UK, 24th September 2012

Mark Keilthy, Global Health Strategist, Health Protection Agency 20th March 2013

Antony Kessel, Public Health Strategy Lead, Health Protection Agency UK, 29th January 2013 (phone interview)

Amnat Khamsiriwatchara, Chair Biophics, 2nd April 2013

Darika Kingnate, International Office. Ministry of Public Health, Thailand, 20th March 2013

Rungreung Kitphati, Bureau of Emerging Infectious Diseases. Ministry of Public Health, 2nd April 2013

Moe Koo Ooo, Mekong Basis Disease Surveillance Network, 5th March 2013

Woraya Luang-On, Department of Disease Control, Ministry of Public Health, Thailand 2nd April 2013

John Mackenzie, Curtin University, 24th October 2012

Nora Madrigal, USAID, 22nd April 2013

Dilys Morgan, HAIRS Group, Health Protection Agency UK, 24th September 2012

Tony Mounts, World Health Organization, 18th September 2012

Rustam Muzafarov, Regional Coordination Unit, Asian Development Bank, 8th April 2013

Chea Nora, WHO Cambodia Country Office, 18th April 2013

Catherine O’Conner, Horizon Scanner, Health Protection Agency, 20th February 2013 (phone interview)

Michael O’Rourke, Asian Development Bank, 8th April 2013

Amy Parry, WHO Cambodia Country Office, 17th April 2013

Natalie Phahalyothin, Rockefeller Foundation Regional Asia Office, 25th April 2013

Bounlay Phommasack, Director Centre of Disease Control, Ministry of Health, Laos, 8th April 2013

Stephane Rousseau, Thammasat University, Bangkok, 16th March 2013

Mark Salter, Global Health Lead, 22nd January 2013 (phone interview)

Dubravka Selenic Minet, WHO Thailand Country Office, 23rd April 2013

Mark Smolinski, Director of Global Health, Skoll Global Threats, 16th February 2013

Khampithoune Somsamouth, Ministry of Health, Laos, 9th April 2013

Busarawarn Sriwanthana, National Institute of Health, Thailand, 20th March 2013

Sameera Suri, Global Outbreak Alert and Response Network, World Health Organization, 19th September 2012

Patipat Susumpao, OpenDream, 21st March 2013

Channe Suy, InSTEDD, 25th April 2013

Sok Touch, Director of Disease Control, Ministry of Health Cambodia, 17th April 2013

Klaikong Vaidhyakarn, ChangeFusion, 18th March 2013

Jack Woodall, ProMED, 16th February 2013

Rochana Wutthanarungasan, Department of Disease Control, Ministry of Public Health, Thailand, 2nd April 2013