

EXAMINING CROSS BORDER ISOLATION AND QUARANTINE LAWS:
IMPACTS ON PUBLIC HEALTH AND EBOLA RESPONSE

Dissertation

Submitted to

The Nelson Mandela School of Public Policy and Urban Affairs
Southern University and Agricultural & Mechanical College

In Partial Fulfillment of the Requirements for

The Degree of

Doctor of Philosophy in Public Policy and Urban Affairs

By

Glennis P. Gray, MSN, RN-BC

Southern University and A&M College

Baton Rouge, Louisiana

March, 2016

ProQuest Number: 10141385

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10141385

Published by ProQuest LLC (2016). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

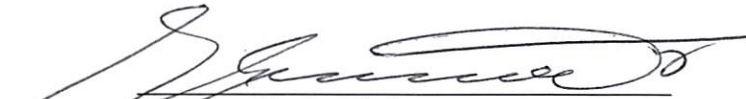
EXAMINING CROSS BORDER ISOLATION AND QUARANTINE LAWS:
IMPACTS ON PUBLIC HEALTH AND EBOLA RESPONSE

Gray, Glennis P.

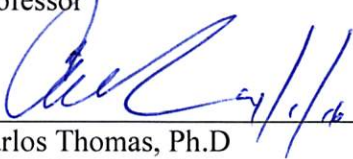
APPROVED BY:



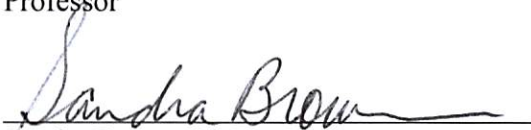

James Larson, Ph.D
Committee Chair
Professor



Kingsley Esedo, Ph.D
Committee Member
Professor



Carlos Thomas, Ph.D
Committee Member
Professor



Sandra Brown, Ph.D
Committee Member
Professor



Damien D. Ejigiri, Ph.D
Dean of the Graduate School
Southern University and A&M College

© Copyright by
Glennis P. Gray
All rights reserved
2016

ABSTRACT

EXAMINING CROSS BORDER ISOLATION AND QUARANTINE LAWS: IMPACTS ON PUBLIC HEALTH AND EBOLA RESPONSE

Isolation and quarantine are two words that have been put in the spotlight especially with the recent Ebola epidemic. Isolation and quarantine are tools often utilized by public health officials around the world to address many types of infectious diseases. Recent experiences with Ebola indicate that isolation and quarantine laws invoke a myriad of ethical challenges. In the United States, legislation that authorizes isolation and quarantine has been enacted in every state and the laws have been upheld by the Supreme Court. Currently, state and local governments have the primary authority to control the spread of diseases within their jurisdictions, while the federal government's role is limited to interstate and foreign quarantine. However, many states have inadequate procedures in place for isolating individuals who are infected or believed to be infected. In general, the laws currently in effect do not address the spread of disease resulting from a biological attack, and for the most part singly address specific diseases that caused epidemics in the the past. In light of the recent Ebola outbreak, many states are reevaluating their public health emergency response plans and are enacting more robust

regulations relating to isolation and quarantine. This dissertation provides a brief overview of selected legal questions and legal issues regarding the isolation and quarantine laws in Louisiana and Texas, highlights the impact of those laws on public health and Ebola response, and identifies measures that can be adopted by public health systems, and the world health community in responding to potential health threats.

DEDICATION

This dissertation is dedicated to my mother, Vendora W. Gray, for her wisdom, knowledge, love, and prayers throughout my life, and to the memories of my father, Baron D` Gray and brother, Byron S. Gray, Sr.

ACKNOWLEDGEMENTS

I would thank Dr. Gail Hollins who has supported, read, reread, given feedback, and prayed for me during this entire dissertation journey. I am appreciative to my doctoral committee members for their support, Dr. James Larson, my advisor and committee chair for seeing my vision and helping me carry it through. Also, I thank my fellow doctoral students-those who have moved on, those in quagmire, and those just beginning for their support, feedback, and friendship.

I am grateful for Deidre Street Hardy who has given me insight and much needed direction in the twenty-third hour. Also, I thank my dear friends who supported me and prayed for me, and accepted nothing less than excellence and completion from me. I am particularly appreciative to my wonderful family for their patience and understanding, allowing me the opportunity to thrive. I thank Dr. Shawn Wilson, Dr. Raquel Square-Ayles, Dr. Robyn Merritt, Dr. Tiffiany Wilkerson-Franklin, and Ronald Rodgers PhD (C), AKA “The Gladiators” for their support, love, and feedback on this project and during this doctoral journey.

Above all, I am forever grateful to God almighty for the love, wisdom, and revelation knowledge that He has given me throughout my life.

“And let us not be weary in well doing: for in due season we shall reap, if we faint not.” (Galatians 6:9)

TABLE OF CONTENTS

	PAGE
APPROVAL PAGE	ii
COPYRIGHT PAGE	iii
ABSTRACT	iv
DEDICATION	v
ACKNOWLEDGEMENTS	vi
LIST OF TABLES	vii
LIST OF FIGURES	viii
CHAPTER I INTRODUCTION.....	1
Background of the Study.....	5
Statement of Problem.....	15
Purpose of the Study	20
Rationale	25
Research Question.....	26
Definition of Terms.....	26
Limitations and Assumptions.....	27
Deficiencies in the Literature	28
CHAPTER II THEORETICAL FRAMEWORK	29
CHAPTER III LITERATURE REVIEW	34
CHAPTER IV HYPOTHESIS/METHOD.....	46
Comparative Case Studies	49
Research Design.....	49
Instruments/Measures	50
Data Collection.....	50

Setting	51
Sample.....	51
Data Analysis.....	51
Ethical Considerations.....	52
Protections.....	52
CHAPTER V RESULTS	53
Demographic Data.....	54
Description of the Sample.....	55
Qualitative Sample Questionnaire Analysis	58
CHAPTER VI DISCUSSIONS, IMPLICATIONS, & RECOMMENDATIONS.	94
Research Conclusions	94
Significance of the Study	97
Recommendations for Future Research	98
Limitations	100
REFERENCES	104
APPENDICES	112
Appendix A: Core Elements of Legal Preparedness.....	113
Appendix B: Louisiana Provisions	119
Appendix C: Texas Provisions.....	121
VITA.....	123

LIST OF TABLES AND FIGURES

TABLES	PAGE
Table 1. Core Elements of Legal Preparedness	48
Table 2. Vaccination Fee Assessment	86
Table 3. Core Elements of Legal Preparedness	114
Table 4. Louisiana Provisions.....	120
Table 5. Texas Provisions	122

FIGURES	
Figure 1. Logic Model	24
Figure 2. Basic preceding of qualitative content analysis	47
Figure 3. Qualitative Survey: Emergency Preparedness Officials.....	59

CHAPTER I

INTRODUCTION

This chapter contains a synopsis of the historical aspect of Isolation and Quarantine within the realm of public health and emergency preparedness. The federal government derives its authority for isolation and quarantine from the Commerce Clause of the United States (U.S.) Constitution. Federal isolation and quarantine are authorized by the Executive Order of the President and can be revised by Executive Order. Under Section 361 of the Public Health Service Act (42 U.S. Code § 264), the U.S. Secretary of Health and Human Services is authorized to take measures to prevent the entry and spread of communicable diseases from foreign countries into the United States and between states. The authority for carrying out these functions on a daily basis has been delegated to the Centers for Disease Control and Prevention (CDC). The findings of this study will: (1) benefit local, state, and federal entities in their continued efforts to bridge the gap in legal preparedness across cross-jurisdictional lines when responding to future public health emergencies; (2) reveal deficiencies in cross-jurisdictional legal preparedness planning and offer proposals to rectify those deficiencies when responding to future public health emergencies; and (3) help establish a precedence of policy change within the specialized arena of emergency preparedness across cross-jurisdictional state lines.

Emergency preparedness and response in public health systems have research priorities that are relevant to the specific expertise in public health and related fields.

This is a top priority as articulated in the Centers for Disease Control's (CDC's)

Advancing the Nation's Health: A Guide for Public Health Research Needs, 2006-2015.

In this guide, special attention is given to:

- Protecting vulnerable populations in emergencies (improving the identification of health vulnerability and evaluating interventions to lessen the risk of poor health outcomes);
- Strengthening response systems (developing and evaluating integrated systems of emergency public health services and incident management);
- Preparing the public health workforce (developing and evaluating strategies and tools to train and exercise the public health workforce to meet responsibilities for detection, mitigation, and recovery in varied settings and populations);
- Improving timely emergency communications (evaluating characteristics of effective risk communication in emergency settings and system enhancements to improve effective information exchange across diverse partners and populations under emergency conditions); and
- Improving information management to increase use (scenario modeling and forecasting; information and knowledge management tools to improve the availability and usefulness during crisis decision making).

Similarly, the Institute of Medicine (IOM) Committee on Research Priorities in Emergency Preparedness and Response for Public Health Systems recommends that the Coordinating Office of Terrorism Preparedness and Emergency Response (COTPER)

prioritize conducting research that will identify the factors that affect a community's ability to successfully respond to a crisis with public health consequences, and the systems and infrastructure needed to foster constructive responses in a sustainable manner (Institute of Medicine, 2011).

Assessing and evaluating how the law shapes the public health systems preparedness activities is an emerging, vital subject matter. Law plays a critical role in all stages of a public health emergency, including planning, response, and recovery. The September 11, 2001 terrorist attacks, as well as the subsequent anthrax attacks were a harbinger to the United States of America. Fourteen years later, significant gaps have persisted, particularly in the areas of conducting bio surveillance; providing mass care during emergencies; maintaining a stable medical countermeasure (MCM) strategy; and helping communities learn how to cope and recover from emergencies (Trust for America, 2011). Instead of building on the achievements and addressing continuing concerns, the progress of the past 14 years is now at risk, primarily because of severe federal, state, and municipal budget cuts, and lack of prioritization. After 2001, major strides were made in public health emergency preparedness. Investments led to significant improvements in preparedness planning and coordination; public health laboratories; vaccine manufacturing; the Strategic National Stockpile (SNS); pharmaceutical and medical equipment distribution; surveillance; communications; legal and liability protections; staff expansion and enhancements; and surge capacity (Trust for America, 2011). Hurricane Sandy and the fungal meningitis outbreak of 2012 were reminders of the importance of on-going preparedness for emergencies of all types.

More than 29 states, including Washington, D.C., have experienced budget cuts to state public health funds since 2011. Federal funds from the CDC have been cut by 39 percent (Consumer Price Index [CPI], 2012). Decreased funding at the federal, state, and local levels to public health funds have caused a lack of preparedness in states and localities. Though the United States has made significant progress in public health and medical preparedness since 2001, it remains vulnerable to natural and man-made events that threaten the health of large populations, with some events having the ability to overwhelm public health and medical systems.

In the United States, at the federal, state, and local levels, laws provide an infrastructure for public health emergency preparedness and response efforts: they grant the government the ability to officially declare an emergency, authorize responders to act, and facilitate inter-jurisdictional coordination (Rutkow, Vernick, Wissow, and Hodge, 2011). The Stafford Act and the National Emergencies Act are the two laws most visible when the president or a state's governor issues a federal or state declaration. The law establishes the temporal and geographic parameters for the response and makes financial and other resources available (Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. §§ 5121-5207, (2013)).

Existing infectious disease law fails to live up to its potential as a framework and foundation for promoting public health. It is inherent that the substance and form of such laws be revisited and researched. Research in this area may lead to amending or enacting law according to the clear criteria and procedures that states possess by using effective opportunities to improve the prevention and treatment of infectious diseases.

Background of the Study

The preservation of public health is among the most important goals of government. In *The Future of Public Health*, the Institute of Medicine (IOM) strongly recommended that the United States reform its public health infrastructure, training capacity, and body of enabling laws and regulations (IOM, 2011). In response, some states updated their public health laws, but many others did not. Therefore, the law in most states remains open for reform. Since law is what defines and enables government to exercise public health powers, outdated laws may diminish public health goals. For instance, if there are guidelines set to reform state communicable disease law and these guidelines are accepted, then state legislation could be changed.

Historically, laws have been used to respond to various emergencies including public health emergencies such as infectious disease outbreaks and severe weather events. The Institute of Medicine (2011) has recommended that state and local governments review and modernize their laws generally to ensure “that appropriate powers are in place to enable public health agencies to address contemporary challenges to population health. Efforts were made to modernize states’ public health laws, including their emergency laws, early in the 21st century. The H1N1 influenza pandemic, Hurricanes Katrina and Sandy, and Ebola Virus Disease (EVD) outbreaks have yielded important new lessons about preparedness that are not necessarily reflected in current state laws. These catastrophic events also have placed additional pressure on state and local public health systems confronting a multitude of preparedness and increasing budget concerns. The fundamental challenge for state and local public health agencies is how to use the law to prepare for and respond to public health emergencies.

More than most aspects of domestic social policy, law creates, defines, and reshapes the organization and delivery of public health services (Gostin, Koplan, and Grad, 2007). There is a level of interdependence between law and public health that is very important in disaster preparedness. Public health preparedness policy can be affected by the laws in many ways. Legislation can require funding for certain services, providing the services according to specific guidelines, or impose certain constraints on how the money can be allocated. Laws and regulations can also be pivotal in assigning and clarifying roles and responsibilities related to a broad range of public health emergencies. Over the years, particularly in the case of Hurricane Katrina, and most recently the Ebola Virus Disease outbreak, the U.S. has witnessed the consequences of responses to public health emergencies that are delayed or inadequate because of ambiguity over fundamental issues about who is responsible for what (National Association of County and City Health Officials [NAACHO], 2014).

Ebola, previously known as Ebola hemorrhagic fever, is a rare and deadly disease caused by infection with one of the Ebola virus strains (Zaire, Sudan, Bundibugyo, or Tai Forest virus) (CDC, 2015). Ebola viruses are found in several African countries (Liberia, Sierra Leone, Guinea, and Nigeria). The first Ebola virus was discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa. Based on evidence and the nature of other similar viruses, researchers believe that Ebola virus is animal-borne and that bats are the most likely reservoir. Ebola virus is spread through direct contact with the blood or body fluids (including but not limited to feces, saliva, urine, vomit, and semen) of a person who is sick with Ebola (CDC, 2014). The virus in the blood and body fluids can enter another

person's body through broken skin or unprotected mucous membranes (eyes, nose, or mouth). The virus also can be spread through contact with objects (like needles and syringes) that have been contaminated with the virus, or infected animals. Ebola is not spread through the air, by water or, in general, by food; however, in Africa, Ebola may be spread as a result of handling bush meat (wild animals hunted for food) and contact with infected bats (CDC, 2014). The incubation period, from exposure to when signs or symptoms appear is 2 to 21 days but the average is 8 to 10 days. Genetic analysis of the virus in the current outbreak indicates it is closely related to variants of Ebola virus (species *Zaire ebolavirus*) identified earlier in the Democratic Republic of the Congo and Gabon (CDC, 2014). Signs of Ebola include fever (greater than 38.0 degrees Celsius or 100.4 degrees Fahrenheit) and additional symptoms, such as severe headache, muscle pain, vomiting, diarrhea, abdominal (stomach) pain, or unexplained hemorrhage (bleeding or bruising) (CDC, 2014).

Isolation and quarantine are strategies of the public health system used to protect the public from infectious diseases by preventing exposure to infected or potentially infected people. The 14th century marked the beginning of quarantine practices as we know it. Quarantine began as an effort to defend coastal cities from plague epidemics. When the United States was established, very little was done to prevent the importation of infectious diseases. Protections against imported diseases fell under local and state jurisdiction. Individual municipalities enacted a variety of quarantine regulations for arriving vessels. Ships arriving in Venice, Italy from infected ports were required to sit at anchor for 40 days before landing. This practice, called quarantine, was derived from the Italian words *quarantagioni* which means 40 days. Different state and local governments

tried over time to attempt to impose quarantine requirements. However, continued outbreaks of yellow fever finally prompted Congress to pass federal quarantine legislation in 1878. When Congress passed this federal quarantine legislation it allowed for an easier future development of federal involvement in quarantine activities without conflicting with states' rights (Jackson, 2012). In 1892, outbreaks of cholera from passenger ships arriving from Europe prompted a reinterpretation of the law to provide the federal government more authority in imposing quarantine requirements (Jackson, 2012). A year later, Congress passed legislation that further clarified the federal role in quarantine activities. As local authorities came to realize the benefits of federal involvement, local quarantine stations were gradually turned over to the U.S. government. The quarantine system was fully nationalized by 1921 when administration of the last quarantine station was transferred to the U.S. government.

The Public Service Act of 1944 (Public Law, 1944) clearly established the federal government's quarantine authority for the first time. The Act gave the U.S. Public Health Service (PHS) responsibility for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into the United States. Originally part of the Treasury Department, Quarantine and PHS, its parent organization, became part of the Federal Security Agency in 1939. In 1953, PHS and Quarantine joined the Department of Health, Education, and Welfare (HEW). Quarantine was then transferred to the agency now known as the Centers for Disease Control and Prevention (CDC) in 1967. CDC remained part of HEW until 1980 when the department was reorganized into the Department of Health and Human Services.

When CDC (CDC, 2015) assumed responsibility for Quarantine, it was a large organization with 55 quarantine stations and more than 500 staff members. Quarantine stations were located at every port, international airport, and major border crossing. After evaluating the quarantine program and its role in preventing disease transmission, CDC trimmed the program in the 1970s and changed its focus from routine inspection to program management and intervention. The new focus included an enhanced surveillance system to monitor the onset of epidemics abroad and a modernized inspection process to meet the changing needs of international traffic. By 1995, all U.S. ports of entry were covered by only seven quarantine stations. A station was added in 1996 in Atlanta, Georgia, just before the city hosted the 1996 Summer Olympic Games. Following the severe acute respiratory syndrome (SARS) epidemic of 2003, CDC reorganized the quarantine station system, expanding to 18 stations with more than 90 field employees.

A state's authority to compel isolation and quarantine policies is derived from its police powers. John Marshall in 1827 used the term police power to describe the sovereign powers retained by the states when they delegated some of their authority to the federal government under the U.S. Constitution. Therefore, police powers are the authority of a state government to enact laws and promote regulations to safeguard the health, safety, and welfare of its citizens (CDC, 2015a). Individual states are responsible for intrastate isolation and quarantine practices as a result of this authority and conduct individual activities with respect to their statutes. Despite the increased role of the federal government in matters of public health since the turn of the century, states remain the primary repositories of public health authority. Their authority, grounded in the inherent powers of states as sovereign governments, represents the original source of

governmental power to act in the interests of maintaining and preserving the public's health.

Although the federal government has exercised an increasing presence in the field of public health, states retain the primary responsibility for assuring the health of the community. Recent opinions of the Supreme Court have reemphasized the powers of states in core areas of public health. Some examples of this would be in the areas of surveillance and privacy as well as vaccination, treatment, and bodily integrity.

In surveillance and privacy the law requires health care institutions and professionals to report certain information to health officials. Certain public health agencies also monitor health records to provide early warnings of disease outbreaks. It is critically important to use surveillance in disease control. The federal privacy rules issued under the Health Insurance Portability and Accountability Act (HIPAA) have broad exemptions for public health data. The U.S. Supreme Court has upheld the state's power to require reporting, but public health agencies must have safeguards in place to protect individual privacy (Gostin, 2005).

In vaccination, treatment, and bodily integrity public health agencies have the power to compel vaccination, medical examinations, and treatment, inclusive of direct observed therapy. These medical interventions are critically important in preventing or controlling the spread of infectious diseases. While important they also become an issue if it interferes with patients' rights such as bodily integrity and religious freedom (Gostin, 2005). The courts have upheld state therapeutic powers but with certain provisions. Medical interventions must be necessary for the public's health and therapeutically appropriate for the patient (Gostin, 2005). These judicial decisions

suggest that public health law at the state level remains vital in our federalist system of government.

A well-functioning federalist system gives considerable autonomy and responsibility to state government in preserving and promoting the public's health. While state governments are instrumental in determining broad public health objectives, health authorities at the local level (municipal and parish/county) often have delegated authority and responsibility to monitor, implement, and enforce these objectives (CDC,2015b.) In addition, local health functions may be addressed by parish/county or city ordinance and regulations. Public health authorities at the local level are often the first to identify and respond to health threats, and are a key component in the public health system.

State and local laws and regulations regarding the issues of isolation and quarantine vary widely. Some states have arranged and reduced laws and rules into a systematic code in order to enforce them, while others have relied on older statutory provisions that can be very broad. Certain jurisdictions allow local health departments to be governed by state law. However, in other settings, local health authorities may or may not be responsible for enforcing state or more stringent local law. In some states, a criminal misdemeanor can be filed against an individual if violation of a quarantine order is committed (CDC, 2015c).

The Secretary of Health and Human Services (HHS) has a statutory responsibility for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into the United States (e.g., at international ports of arrival) and from one state into another). The communicable disease for which federal isolation and

quarantine are authorized are set forth through executive order of the President, and include cholera, diphtheria, infectious tuberculosis, plague, smallpox, yellow fever, and viral hemorrhagic fevers (Ebola virus diseases) (CDC, 2014). Severe acute respiratory syndrome (SARS) was added to the list in April 2003. By statute, U.S. Customs and Coast Guard officers are required to aid in the enforcement of quarantine rules and regulations. Violation of federal quarantine rules and regulations constitutes a criminal misdemeanor, punishable by fine, imprisonment, or both. Federal quarantine authority includes the authority to release people from quarantine on the condition that they comply with medical monitoring and surveillance requirements. States and local jurisdictions have primary responsibility for isolation and quarantine within their borders. The federal government has authority under the Commerce Clause of the U.S. Constitution to prevent the interstate spread of disease. The federal government has primary responsibility for preventing the introduction of communicable disease from foreign countries into the United States. By statute, the HHS Secretary may accept state and local assistance in the enforcement of federal quarantine regulations and may assist state and local officials in the control of communicable diseases. It is possible for federal, state, and local authorities to have separate but concurrent legal quarantine power in a particular situation. Because isolation and quarantine are “police power” functions, public health officials at the federal, state, and local levels may occasionally seek the assistance of their respective law enforcement counterparts to enforce a public health order (CDC, 2015b).

The Office of the Assistant Secretary for Preparedness and Response (ASPR), formally known as the Office of Public Health Emergency Preparedness (OPHEP), was established in June 2002. As a branch of the United States Department of Health and Human Services (HHS), the Public Health Service Act was amended in July 2006 to include public health security as well as all-hazards preparedness and response. ASPR is responsible for a wide range of activities, which include, but not limited to, bioterrorism preparedness, preparedness for chemical and nuclear attacks, decontamination and mass evacuations. However, their most important responsibility is related to bioterrorism and public health emergencies. ASPR coordinates activities between HHS, other federal departments and agencies, as well as state and local officials that are responsible for emergency preparedness within their jurisdictional areas. ASPR also collaborates with global partners such as the United Nations (UN) and The World Health Organization (WHO) to address common worldly threats thereby increasing international capacities to respond based on information gathered and best practices (ASPR, 2015).

Moreover, Homeland Security Presidential Directive 21 (HSPD-21) is a directive established to present a National Strategy for Public Health and Medical Preparedness. This directive sets forth a national approach to protecting the health of the American people against all disasters (National Security Presidential Directives [NSPD], 2007). The most critical components of public health and medical preparedness are countermeasure distribution, mass casualty care, and community resilience.

Equally important, Presidential Policy Directive 8: National Preparedness (PPD-8) is a description of the nation's approach to preparing for the threats and hazards that pose the greatest risk to the security of the United States (PPD-8, 2008). National

preparedness (inclusive of emergency preparedness) is the shared responsibility of our whole community.

Every state has some form of emergency management law that refers to legal climate. Therefore, those laws are critical to reduce illness and prevent premature death. The law examines the authority of the government at various jurisdictional levels to improve the health of the general population within societal limits and norms. Various legal and policy decisions inclusive of the need to apply isolation or quarantine measures, in order to reduce public health threats come into play. Such laws typically include specifications that set up a state emergency or disaster management agency; specification of state and local organization roles in responding to disasters; assigning executive authority to declare a state of emergency; explanation of special executive powers that result from such a declaration; and allow cooperation in the form of mutual aid with neighboring jurisdictions. These statutes also address many other aspects of disaster preparedness and response. Typically, such laws provide a rather detailed set of responsibilities for emergency preparedness managers. National and international responses to quarantine and isolation has elicited three important ethical values: privacy, liberty, and the duty to protect the public's health. Legal and ethical recommendations for responding to infectious disease threats, seek to reconcile the tension between the public's health and individual rights to privacy, liberty, and freedom of movement. Ethical and legal recommendations become even more essential when scientific uncertainty is pervasive and urgent public health action is required (NAACHO, 2006).

Improving awareness of and compliance with the legal climate relevant to public health emergencies is critical. There have been many misinterpretations of public health's legal authority during real events which can be significant and either positively or negatively affect response. In a broad sense they are inclusive of but not limited to appropriation of property, documentation of care, civil liability for volunteers, compensation, and isolation and quarantine. In the past, legal liability concerns have been limited to the willingness of those involved in the critical infrastructure of emergency preparedness and response (Goston, Bayer, and Fairchild, 2003).

Statement of the Problem

State and local infectious disease laws are deficient in several respects. Existing public health law too often fails to support public health departments in carrying out their core functions and in accomplishing their goals. Thus, reform is needed where state and local infectious disease laws are deficient.

First, the law has failed to keep pace with scientific developments. State public health departments request and sometimes mandate that private providers and hospitals report suspected diseases. However, health care providers often do not comply. Often, there is a gap in public health departments' capacity to provide real-time or rapid feedback to health providers because of lack of continuous public health staffing and real-time notification technology. While it is the appearance of a patient at a hospital or other health care facility that begins the process of surveillance and notification, the patient is also the last "responder," since monitoring for long-term effects of a communicable disease continues long after hospital discharge.

Second, the lack of funding and technology for the surveillance of long-term health effects may create a system with gaps in disease understanding, treatment, and prevention. The capacity of local and state public health departments to maintain a certain level of epidemiological or disease investigational representation 24 hours a day during a current outbreak is often only minimally present, even in the largest U.S. cities.

Finally, most state public health laws, including those recently rewritten to provide emergency powers, are questionable when it comes to responding to infectious diseases. There are minimum standards outlined in the Model State Emergency Health Powers Act, such as the requirement of the government to provide for people in isolation and quarantine a respect for dignity, necessary facilities, and comfort. (NACCHO, 2006). An example of this is a local government quarantine measure which requires people to remain at home for a specific number of days. This measure also directs people not to interact with others. However, with there being 50 state public health laws, addressing various issues, that could produce a level of inconsistency resulting in illegal restrictions, improper releases, poor mechanisms for actual enforcement of a necessary isolation or quarantine.

Some federal public health-related activities are carried under the power to regulate interstate commerce and to tax and spend. The federal government functions in public health are carried out through regulatory (e.g., Food and Drug Administration [FDA]) and non-regulatory (e.g., Centers for Disease Control and Prevention [CDC]) agencies. The federal government shapes state and local public health through funding and defunding. So the initial issue begins with funding.

Second, infectious disease laws quite often fail to comply with modern constitutional standards. Many of these laws are outdated and fail to meet constitutional requirements. Therefore, they lack sufficient safeguards to comply with standards of equal protection and substantive due process enunciated by state and federal courts.

Third, many state statutes fail to articulate clear criteria for exercising public health powers--the powers that enable officials to test, clinically examine, medically treat, immunize, isolate, or quarantine individuals. Some statutes provide vague or incomplete standards. Others grant the use of powers within the broad discretion of state public health officials. By definition, both isolation and quarantine restrict the movement of individuals. While voluntary isolation and quarantine are often successful, involuntary restriction may be required in some circumstances or with particular individuals. Any plan for implementation of isolation or quarantine requires clear delineation of the relevant legal authorities and responsibilities. To avoid unnecessary and potentially dangerous delays and barriers, it is crucial that public health personnel, law enforcement, the judicial system and other local authorities are familiar with these legal issues. Without express standards, public health officials may exercise public health powers ineffectively--either by restricting individual liberty without valid public health grounds, or failing to respond appropriately to public health threats (CDC, 2015a).

Fourth, most state infectious disease statutes fail to ensure due process procedures for exercising public health powers. The Fifth and Fourteenth Amendments to the U.S. Constitution which consist of the constitutional guarantee of due process of law, prohibit all levels of government from arbitrarily or unfairly depriving individuals of their basic constitutional rights to life, liberty, and property. The Due Process Clause of the

Fourteenth Amendment incorporates the protections of the Bill of Rights, so that those protections apply to the states as well as to the federal government (CDC, 2015c). Thus, the Due Process Clause is binding on state governments as well as the federal government. Where few formal procedures exist, public health officials risk wielding their powers inappropriately or inconsistently.

Finally, many state statutes fail to provide strong consistent privacy protections for the collection, reporting, and release of information relating to infectious disease. In some states, protection depends primarily upon disease classification. Disease classification is also known as the International Classification of Diseases (ICD) which is the standard tool used by physicians, nurses, policy-makers, and patient organizations to classify diseases and other health problems recorded on many types of health and vital records. It is the standard diagnostic tool for epidemiology, health management and clinical purposes. It is evident that reform is needed. States and the federal government possess the power to improve disease control efforts by revising infectious disease law.

Infectious disease laws can be revised in several ways. First, states are encouraged to eliminate separate classifications for communicable diseases to avoid enacting disease-specific provisions where possible. Because there are no uniform standards, there is no cohesive set of standardized interventions. Uniform standards, based upon the degree of risk, the cost and efficacy of the response, and the burdens on human rights, would lend clarity and coherence to public health interventions.

Second, states are encouraged to recognize voluntary cooperation as the primary method to obtain compliance with public health measures. States should expressly grant public health officials the authority and the responsibility to encourage voluntary

compliance, as well as the authority to use compulsory measures if necessary. This poses a debatable issue because public health officials must possess a wide range of powers and should exercise them according to the principle of the least restrictive alternative.

Third, states are encouraged to use compulsory powers based upon a demonstrated threat of significant risk. Public health officials can ensure rational and reliable application of infectious disease law by specifying a consistent and exacting standard: the nature of the risk (the mode of transmission); the duration of the risk (the length of communicability); the probability of the risk (the likelihood of transmission); the severity of the harm (the seriousness of the consequences); and the human rights burden.

Fourth, states are encouraged to incorporate procedural due process protections in their infectious disease laws. If due process is not incorporated in infectious disease laws by clearly articulating the authority to exercise compulsory powers and specifying when use of such power is appropriate, then state public health officials will not be better equipped to control communicable disease while respecting individual liberties. Fifth, states are encouraged to provide public health officials with a broad and flexible range of powers. By equipping public health authorities with graded powers ranging from isolation, quarantine, and directly observed therapy to cease-and-desist orders or mandated counseling, education, or treatment, authorities will be able to tailor interventions to the specific situation and disease threat.

Last, states are encouraged to provide strong protections for privacy and security of public health information and to draw narrow exceptions for disclosure when necessary. Recommended criteria include justifying data collection, informing subjects,

incorporating fair information practices, ensuring privacy and security of data, justifying instances of disclosure, and reviewing protection mechanisms.

Existing infection disease law fails, in part, to live up to its potential as a framework and foundation for promoting public health. By revisiting the substance and form of such law, through amending or enacting law according to the clear criteria and procedures, states possess an effective and cost-effective opportunity to improve the prevention and treatment of infectious disease.

Purpose of the Study

Public health law should ensure that public health agencies are fully capable of responding to current and impending health threats. Two examples of the failure of communicable disease law to provide clear strategies or safeguards in the face of public health threats are as follows:

- Health officials have sometimes failed to respond decisively when a person with a sexually transmitted disease (STD), including Human Immunodeficiency Virus Infection/Acquired Immune Deficiency Syndrome (HIV/AIDS), continues to engage in dangerous sexual or needle-sharing behavior. In Texas and Florida, public health officials were unable to respond quickly and effectively when individuals were known to be spreading STDs. Public health laws have made it difficult for health authorities to avert a significant risk because most state laws are limited in several ways: (1) they condition coercive powers on contagiousness rather than risky behavior, making it unclear when it is appropriate to act; (2) they do not provide a flexible range of powers, leaving officials with the

choice either of ordering a complete loss of liberty or of not acting at all; and (3) they do not comport with modern constitutional requirements, so officials are reluctant to use their compulsory powers.

- Tuberculosis, including multi-drug resistant TB, rose sharply in many cities in the late 1980s and early 1990s (Hollingsworth, 2014).

Tuberculosis statutes in many of these jurisdictions authorized antiquated responses to the disease, including commitment to a sanitarium and other forms of isolation. These laws, however, did not authorize modern powers preferred by public health officials today, such as directly observed therapy and incentives for individuals to take the full course of their anti-tuberculosis medication. The absence of these flexible powers made it hard for states to initiate effective interventions against the resurgent tuberculosis epidemic (Hollingsworth, 2014).

In each of these examples the law was not the only, perhaps not even the major, problem facing public health authorities. Yet, in each case, well-drafted laws could have helped protect the public's health or prevent violations of individual rights. Reform of the law relating to infectious disease can promote more effective decision making and protect individual rights with a relatively modest increase in public expenditure. Effective law reform would achieve the following results:

- Recognize voluntary cooperation as the primary way to obtain compliance with public health measures.
- Base use of compulsory powers on a demonstrated threat of significant risk, except in cases of emergency.

- Provide a range of options for public health officers.
- Provide strong protections for privacy and security of public health information with narrowly drawn exceptions for disclosure when necessary to protect the public's health.

It is important to note that the law is only one factor that guides public health officials and there are limitations to the legislative approach because communicable disease law still must be applied in the real world. In making policy decisions, public health authorities will have to consider prevailing social values and respect multiple constituencies, including scientists, politicians, and community activists.

Public health law differs greatly from state to state, defying broad generalizations. The law in many states consists of successive layers of statutes and amendments, built over 100 years in response to disease epidemics. Only a few states such as New York and California have rewritten or consolidated their laws into a unified set of statutes that apply to a broad range of diseases and conditions.

There are a limited number of studies on the legal climate of emergency preparedness. Thus, there is an opportunity for further study based on this gap. A summary of the peer-reviewed literature recognized that legal issues are critical to preparedness, response, and recovery. This is of particular importance when it comes to certain capabilities such as evacuation, mandatory vaccination, isolation, and quarantine (Weiss, McKie, and Goodman, 2007). In the review of literature, there has been evidence that the public may not comply with emergency mandates. This is due in part to the threat of legal complications (Weiss, McKie, and Goodman, 2007). One study highlighted a survey of residents from the United States, Hong Kong, Singapore, and Taiwan. In the

study, a large number of respondents supported a mandate to wear masks and have their temperature taken as a precaution, as well as being placed in quarantine if any type of infectious disease was suspected (Blendon, Cetron, Benson, Meinhardt, and Poirard, 2003). However, if arrest was indicated as a consequence of noncompliance, then support for these dropped. This was so if there were compliance measures and methods put in place such as video monitoring. The passage of most communicable disease laws in the United States has been fragmented, in response to specific disease threats. In the 18th century, communicable disease statutes focused primarily on small pox, yellow fever, and plague. In the 19th century, states and municipalities enacted laws to combat cholera and tuberculosis. In the early to mid-20th century, legislatures responded to epidemics of poliomyelitis, influenza, and venereal disease, with disease-specific laws. In the latter part of the 20th century, legislatures addressed HIV/AIDS with AIDS-specific statutes, adding yet another layer to existing law (Blendon, et. al, 2003).

Although some statutes have been amended over the years, many contain elements that are 40 to 100 years old. Certainly, old laws are not necessarily bad laws. A well-written statute may remain efficacious, and constitutional for many decades. However, old public health statutes that have not been substantially altered since their enactment often do not reflect contemporary scientific understanding of disease, current treatments of choice, or constitutional limits on states' authority to restrict individual liberties. In the logic model represented in Figure 1, examination of cross border isolation and quarantine laws is the input. While the output includes better prepared policy makers to effectively update public health laws and policies that will have a future effect on public health and emergency response.

LOGIC MODEL

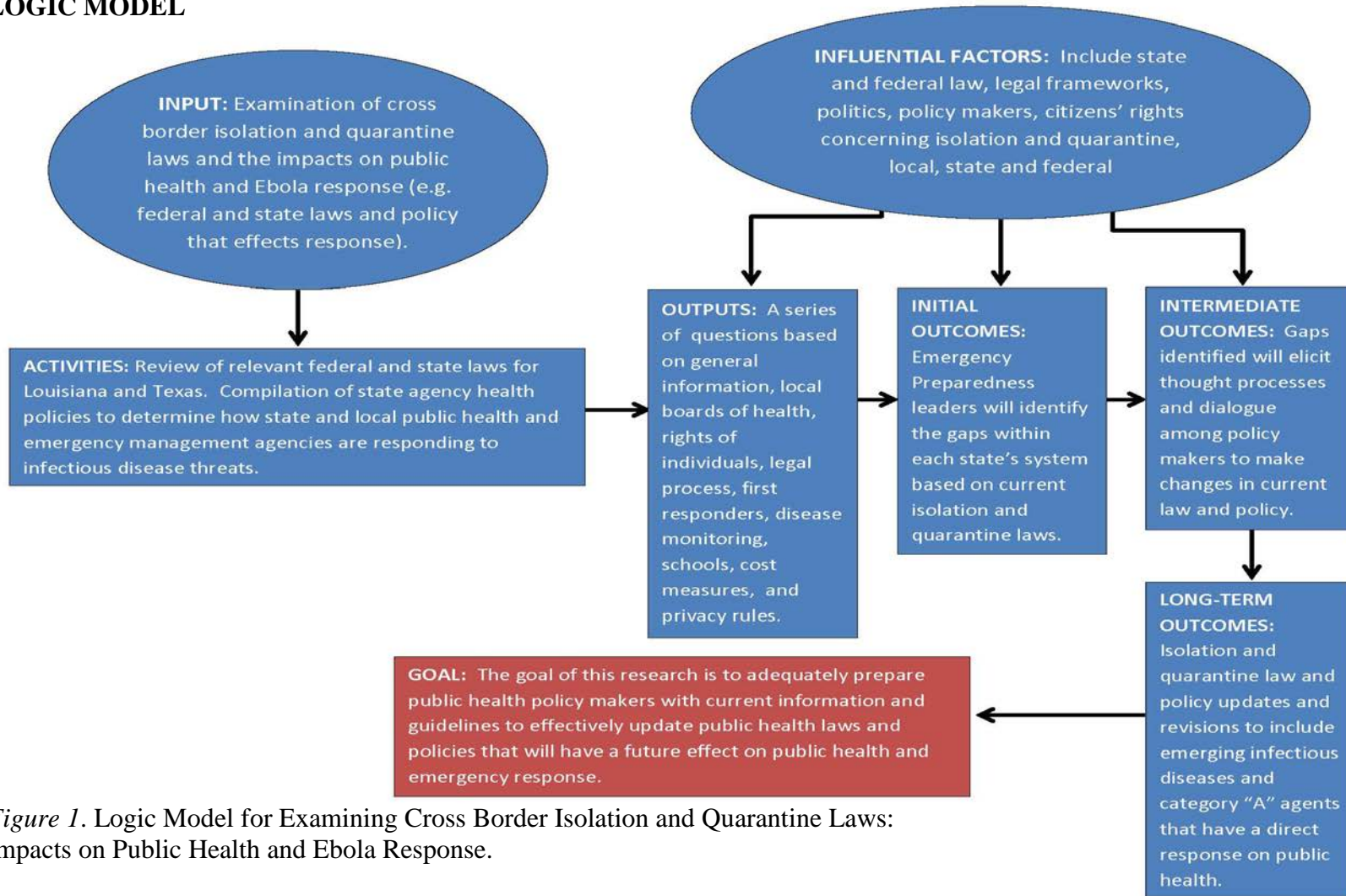


Figure 1. Logic Model for Examining Cross Border Isolation and Quarantine Laws: Impacts on Public Health and Ebola Response.

Rationale

Public health quarantine and isolation are legal authorities that are implemented to prevent the spread of communicable diseases. Isolation may be used for ill or sick people, to protect the public by preventing exposure to infected people (Blendon et al., 2006). In contrast, quarantine may be used to restrict the movement of well people who may have been exposed to a communicable disease until it can be determined if they are ill. State and local governments are primarily responsible for maintaining public health and controlling the spread of diseases within state borders. Along with other state public health emergency preparedness powers, every state, including the District of Columbia and most United States territories have laws authorizing quarantine and isolation, which may be through the state's health authority (Blendon et al., 2006).

Scholarly resources include the following: *Journal of Health Communication*; *Journal of Law; Medicine & Ethics*; *American Journal of Public Health*; *The National Action Agenda for Public Health Legal Preparedness*; *Government, Politics & Law*; *Tennessee Bar Journal*; *The Nation's Health*; *Disasters*; *Emergency Medicine Australasia*; *Journal of Environmental Health*; *BMC Public Health*; *Public Health Nursing*; *Journal of the American Medical Association*; *National Association of County & City Health Officials*; *U.S. Department of Health and Human Resources (HHS)*; *Centers for Medicare and Medicaid Services (CMS)*; *Military Medicine*; *University of Florida Journal of Law and Public Policy*; *Journal of Advanced Nursing*; and *American Journal of Health Systems Pharmacy*. These sources are all inclusive of authors and their research used for the proposed research. The authors of journal articles within the above noted references and the researchers' interest in public health law implications influence

the idea of future research. The proposed dissertation will build upon the recommendations of future research and study offered by some of the aforementioned authors through the assessment of coalition states and international entities' legal climate.

Research Questions

By examining existing efforts to identify current laws, regulations, provisions and legal constraints, the researcher will ask one guiding question: How do current statewide emergency preparedness public health laws for Louisiana and Texas affect the public health system's ability to allow standardized response to isolation and quarantine with Ebola response? Other questions considered in the research study are:

1. What did each state do for Ebola relative to the law concerning asymptomatic individuals vs. the normal sanitary code? Was it more or less restrictive/non-restrictive than the CDC's guidelines?
2. What is the state's sanitary code/law vs. federal law (CDC guidelines)?
3. What is the comparison of state vs. state powers for Ebola?
4. Did each state adopt the approach for what they did for isolation and quarantine with regard to Ebola?

Definition of Terms

For this study, it was necessary to establish a definition of "public health emergency preparedness" and related terms. Nelson, Lurie, Wassermann, and Zakowski, (2007) in their editorial in the *American Journal of Public Health* define Public Health Emergency Preparedness in the following way:

1. **Public health emergency preparedness (PHEP)** is the capability of the public health and health-care systems, communities, and individuals to prevent, protect

against, quickly respond to, and recover from health emergencies, particularly those whose scale, timing, or unpredictability threatens to overwhelm routine capabilities. Preparedness involves a coordinated and continuous process of planning and implementation that relies on measuring performance and taking corrective action (Nelson et al., 2007, p. 59).

Public health preparedness, response, and recovery takes place in the context of scalable local, state, tribal, and federal response systems composed of traditional emergency response agencies, public safety agencies, and other governmental and nongovernmental organizations. Moreover, it recognizes that effective response requires that particular attention be paid to interface among these many interconnected response systems (Nelson et al., 2007). For the purposes of this research, the term “preparedness” includes the full breadth of preparedness-related activities; that is, the activities that range from prevention to recovery that are performed by all relevant organizations, including the many levels of governmental and community organizations.

Limitations and Assumptions in the Public Health and Public Health System

The adoption of public health from the landmark 1988 IOM report *The Future of Public Health*, will be used in this study. Public health can be defined as “what we, as a society, do collectively to assure the conditions in which people can be healthy” (IOM, 1988, p. 1). The 2002 IOM report *The Future of the Public’s Health in the 21st Century* describes the concept of a “public health system” as “a complex network of individuals and organizations that have the potential to play critical roles in creating the conditions for health” (IOM, 2002, p. 28). It also lists various factors, which include communities, health-care delivery systems, employers and businesses, the media, homeland security

and public safety, academia, and the governmental public health infrastructure. Although these factors have independent functions, their integration, coordination, and partnerships result in a public health system that can prevent, protect against, quickly respond to, and recover from public health emergencies. These definitions (CDC, 2015d) and the concepts thereof will provide a framework to be used in identifying research priorities for emergency preparedness and response in public health systems.

2. **Isolation** is “the separation of people who have infectious illnesses from those who are healthy, as well as the restriction of their movement.”
3. **Quarantine** is the “separation and restriction of movement of people who are not ill but have been exposed to infectious agents and who may become infectious and ill. Quarantine like, isolation, is intended to stop the spread of infectious disease. Isolation and quarantine may be voluntary or required by law.

Deficiencies in the Literature

The limited research on this topic is a small collection of studies that does not allow one to draw any conclusions or recommendations at present. However, the importance of legal issues within emergency preparedness and the public health system warrants future research. The literature has revealed that the public may not fully comply with emergency mandates, which would emphasize potential legal complications. The lack of information on the legal climate of emergency preparedness across states is unfortunate, because it is needed to represent an overlap with research priorities listed in the Institute of Medicine (IOM) report (Altevogt, 2008), for the next generation of Public Health Emergency Response Coordinators.

CHAPTER II

THEORETICAL FRAMEWORK

There are quite a few normative theories and models that can be and are useful to emergency managers. “These frameworks have been designed to specify actions that emergency managers ought to take” (Drabek, 2004, p. 8). If emergency managers abide by these frameworks, then the probability of their effectiveness will be enhanced greatly. Emergency managers have several functions within their roles, which include, but are not limited to, mitigation, preparedness, response, and recovery.

“Multiyear planning can be guided by the “Integrated Emergency Management” framework proposed by McLoughlin (1985); *Disaster Prevention and Management: An International Journal*, *Preparedness for Emergency Response: Guidelines for the Emergency Planning Process* (Perry and Lindell, 2003). Risk reduction programs have been developed by the American Red Cross (ARC) along with tactical management models. Examples of these types of systems would be the Incident Command System (ICS) and the National Incident Management System (NIMS). Emergency Operations Centers (EOCs) which are highly relevant public health community structures have exercised strategies that were developed for them. Within this context, these normative theories have become relevant to emergency management and provide emergency managers with important theoretical foundations (Drabek, 2004). One model, the Model

of Risk Perception and Vulnerability by Smit and Wandel, is one which “incorporates the community in identifying risk and vulnerability in current and future situation (Smit and Wandel, 2006, Fig. 1). “Stakeholder and community engagement is highlighted in the model as a point of emphasis and as a means of improving “adaptive capacity (Smit and Wandel, 2006).” Adaptive capacity (Smit and Wandel, 2006), refers to the collective adaptability, coping capacity and resilience of a population. Smit and Wandel, 2006, refers to this framework as a “bottom-up” approach, involving key community stakeholders in a process to implement changes that are relevant to the community.

Effective response systems must have a complex matrix of research that includes the use of social, behavioral, engineering, legal, economic, ethical, and media outlets among others. This research reaches beyond the traditional boundaries of public health that will include multidisciplinary, interdisciplinary and/ or cross-disciplinary expertise. Research is necessary to identify how these areas of expertise will work in conjunction with one another.

The Stafford Act was enacted in 1974 is a United States federal law that is designed to bring an orderly and systemic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens. The intent of Congress (Stafford Act, 2007) was to encourage states and localities to develop comprehensive disaster preparedness plans; prepare for better intergovernmental coordination in the face of a disaster; encourage the use of insurance coverage; and provide federal assistance programs for losses due to disaster. It is an amended version of the Disaster Relief Act of 1974. Soon after, in 1979, the Federal Emergency Management Agency (FEMA) was created (FEMA, 2015). FEMA was developed to plan for and

respond to natural disasters. Presidents have relied on the Stafford Act's authority to respond to acts of terrorism in addition to natural or man-made disasters. Such language as noted in the Stafford Act is "any natural catastrophe...or, regardless of cause, any fire, flood, or explosion" (Stafford Act, 1974). There is noted inadequate integration and coordination of the wide range of civilian, military, governmental, private sector, and nongovernmental organization participants in preparedness and response. Recently, there have been attempts by several leading agencies to consolidate and streamline federal entities responsible for emergency management. The federal government has been tasked to "place a greater emphasis on and need for joint acts and efforts across previously discrete elements of government and society" (Banks, 2011, p. 180).

There are several impediments to reform. They are as follows:

1. The United States federal system distributes authority and assigns the roles and responsibilities for domestic emergency preparedness and response only ambiguously.
2. Past and current research within the realms of natural disasters show that actual emergency response is more chaotic than hierarchical. The active participants seem to improvise to provide the needed goods and services that are relevant for that time.
3. Communities are becoming increasingly interconnected and intertwined into urban areas that rely on vulnerable modes of transportation, communication, and provision of public utilities. Because of poor resilience within certain infrastructures similar and often reoccurring consequences with natural and man-made disasters are seen (e.g., terrorist attacks).

4. The federal government has often provided confusing mandates. Often, this occurs without state law reference and poor planning for state and local governments. “Federal funding priorities exacerbate distortions in local planning, where disproportionate attention is paid to less likely terrorist incidents instead of more likely natural disasters” (Banks, 2011).
5. Emergency managers have noted that legal authorities on the federal side do not provide clear prescriptive responsibility over many implementation issues. “Federal, state, and local law enforcement and intelligence entities have at times threatened civil liberties in implementing unclear or open-ended policy or legal objectives.”
6. There are virtually no coordination plans for emergency response. Therefore, they have no assigned leadership to manage the coordination and are not very well tested (Banks, 2011).

Similarly, in the law enforcement and intelligence communities, problems and implementation issues have a negative connotation on the effectiveness of emergency response capabilities. Department of Defense (DOD) and military roles in response to emergencies have been planned. However, military responders are typically active duty as opposed to reservists. They too, have not had a good track record when it comes to response, adequate training, or resources.

There is an unclear relationship that exists between military responders and state and local civilian authorities. This is in some measure due to the ambiguous federal response plans. There are uncertain legal limits on federally deployed troops. This has led

to a state of confusion amongst state and local entities as to what tasks/duties they can or cannot ask troops to assist or coordinate with during a response.

There is an expectation in emergency response that civil liberties of the American people can be threatened because of poor coordination across federal, state, and local entities. Two examples of civil liberties that have been threatened in the past are military detention of American citizens and internment of Japanese Americans. Certain legal authorities within federal, state, and local entities exist to permit measures of military law enforcement, curfew requirements, quarantines or movement of citizens out of areas of endangerment. However, these legal authorities have a broad range of interpretation which can be confusing during times of response. In review of the United States Constitution, there is relatively no language that refers directly to emergencies.

CHAPTER III

LITERATURE REVIEW

Pestronk, Kamoie, Fidler, Matthews, Benjamin, Bryan, and Redd (2008), completed an action agenda paper that dealt with one of the four common core elements of legal preparedness: “laws and legal authorities, competency in using those laws; coordination of law-based public health actions; and information.” The study focused on improving the understanding of the range of hazards that a state or entity needs to be aware of in order to be legally prepared. Those that participated in the summit that the agenda paper summarized had extensive deliberation and discussion. Those discussions were centered on which aspects of public health legal preparedness are important and what laws are most essential when responding effectively to crises and recovering individuals successfully. There was a general consensus that they had to do more than identify gaps in existing law that revealed contradictions, barriers, inflexibility, jurisdictional conflicts, and operational difficulties (Pestronk et al., 2008).

Pestronk et al., 2008, further identified in a companion assessment paper that there were many challenges on laws and legal authorities. Those challenges were inclusive of, but not limited to, the need for surge capacity; timely procurement of goods and services; protection of private medical documentation; the use of the National Guard and military assistance; seizure of private property; the role of legal counsel during

emergencies; “and the fit of the federal Pandemic and All-Hazards Preparedness Act (PAHPA) and the World Health Organization’s (WHO) new International Health Regulations (IHR) with United States constitutional law and other domestic legal and political considerations” (Pestronk et al., 2008, p. 50).

Participants recognized areas in which new law would be useful. However, there was a consensus that developing new laws was not the top priority. The top priority was that those persons who make the law, use the law and are affected by the law familiarize themselves with the scope, substance, and application of new laws. Familiarity with the law in itself leads to a better understanding of where new law adoption might be beneficial and would be gained. This summit summarized options for improving laws and legal authorities for public health legal preparedness in short-term actionable options and long-term actionable options. The short-term actionable options are inclusive of but not limited to (IOM, 2008):

(1) “jurisdictions considering “conducting regular, periodic assessments, including exercises, analysis, and other test of sufficiency of laws for public health emergency response to identify potential gaps in these powers and authorities; avoiding unnecessary overlapping authorities or create necessary ones; clarifying the balance of powers and responsibilities among jurisdictional officials; and facilitating smooth operations during emergencies;” (2) “Assess the adequacy of, enhance, and give visibility to existing cross-jurisdictional agreements and compacts (e.g., Emergency Medical Assistance Compact (EMAC), regionalized public health services, and tribal/non-tribal agreements) and

encourage the adoption of similar effective compacts;” (3) “Review, assess, and as needed, draft alternative approaches for jurisdictions to protect privacy of medical information as much as possible during emergencies;” (4) “Review, assess, and as needed, draft alternative laws and policies related to the evacuation of people, pets, livestock, and other animals during emergencies;” (5) “Assess and clarify legal authorities for states’ activation of the National Guard during public health emergencies;” (6) “Clarify laws related to the dissemination and use of medical countermeasures during emergencies (e.g., mass distribution of prescription drugs);” (7) “Assess the sufficiency of, and improve as necessary, local, state, and tribal laws for social distancing (e.g., isolation, quarantine, closure of public facilities, curfews, and relevant procedural due process considerations” (Pestronk et al, 2008, p. 51).”

The long-term actionable options are inclusive of but not limited to: (1) “Review, assess, and if indicated, improve laws regarding liability for emergency response;” (2) “Review, assess, and clarify laws regarding authorization of specific government agencies (e.g., law enforcement and public health agencies) to implement and enforce differing public health interventions (e.g., social distancing measures, mandatory vaccinations and treatment, or screen) during an emergency;” (3) “Clarify the role for legal counsel, including states’ attorneys general, private counsel for corporations and non-profit entities in public health emergency matters;” (4) “During and after a public health emergency, systematically identify, document, and disseminate information on the effectiveness of laws and legal authorities (Pestronk et al, 2008, p. 51).”

There were three general themes developed to guide the strengthening of legal preparedness in the context of global preparedness for emergencies. The first theme was the context of global preparedness for emergencies. Serious threats to public health in the global context arise and are handled on a daily basis. However, there is a need for additional work to “clarify, strengthen, and expand certain legal preparedness aspects of the bilateral public health cooperative arrangements (Pestronk et al, 2008, p. 50).” The second theme was the public/private coordination in legal preparedness. Concerns such as liability, immunity, volunteer efforts and compensations were considered from business and private non-profit sectors. These very same issues were relevant and cited in after-action reports of the 2003 Severe Acute Respiratory Syndrome (SARS) event and Hurricane Katrina. The third and final theme was geared toward practitioners, legal preparedness and advocacy. There is a level of importance when adopting and implementing a law or legal authority that advances the public’s health. Law frames the rules under which advocates may seek to influence lawmakers (Pastronk et al, 2008). Future scenarios with the threat of biological threats and pandemic diseases accentuate the obligation to assess, clarify, and identify gaps in laws and legal authorities that will reshape the way we think about public health legal preparedness.

Kamoie, Pestronk, Baldrige, Fidler, Devlin, Mensah, and Doney (2008), describes the evolution and current status of essential legal authorities for public health preparedness. It is important to note that the law creates public health agencies and funds them accordingly. The law also provides key foundations for public health practice in the United States. The paper further defines the term law as a “rule of conduct derived from

federal or state constitutions, statutes, local laws, judicial opinions, administrative rules and regulations, international codes, or other pronouncements by entities authorized to prescribe conduct in a legally binding manner” (Kamoie, et al., 2008, p. 24). In the realm of public health, legal preparedness law falls under the heading of public health preparedness. The law is one of the four core elements of public health that encompasses competencies, information, and coordination. There were three preparedness initiatives that were discussed. These initiatives were health care system surge capacity (the ability to manage a sudden influx of patients), the Pandemic and All-Hazards Preparedness Act, and implementation of the International Health Regulations. These three initiatives were chosen to epitomize the global span of public health legal preparedness from the international, federal, state, and local view. Events ranging from September 11, 2001 terrorist attacks, anthrax attacks, and Hurricane Katrina in 2005 triggered legislative and regulatory activities that would modernize public health law. Modernizing public health law along with other legal reforms would lead ultimately to improving the legal frameworks to improve public health preparedness. As noted in the previous article review, legal landscape review brings about new and interesting questions. Those questions are: “Are new laws and legal authorities needed? Is the public health community making the most effective use of existing authorities? Are existing laws forming a barrier to achieving effective preparedness and response to public health emergencies (Kamoie, et al, 2008, p. 25)?” Law continues to play a key role in the advancement of control of infectious diseases, vaccinations, prevention of chronic diseases, and the evolution of emergency preparedness and response within the public health system to respond to all-hazards events.

The Robert T. Stafford Disaster Relief and Emergency Assistance Act is the primary authority and framework for federal emergency response. The Public Health Service Act is the primary federal public health response authority. Because of the evolution of these above noted frameworks, the Department of Homeland Security and the White House Homeland Security Council developed a National Health Preparedness Security Index (NHPSI) released in November 2013 to the general public that addresses the nation's ability to respond to public health emergencies. There are several essential legal authorities that can be pulled from these frameworks. The NHPSI, as noted earlier, focused on surge capacity, the Pandemic and All-Hazards Preparedness Act, and international health regulations.

The element of surge capacity came about because of the ground breaking events that happened from 2001-2005. There were gaps noted in the legal authority of states and the federal government in relation to responding to emergencies that would affect public health. State and local level government hold the primary responsibility of preservation of life and property. The health care industry is highly regulated and regulation standards restrict the number of clients that can be absorbed and treated in one facility. Health care industry laws were not written with the vision of potential operations during an all-hazards event. Therefore, the liability of deviating from regulatory standards during any man-made or natural disaster can result in civil, administrative and criminal lawsuit along with hefty fines and penalties. Some regulatory agencies bypass enforcement of these laws and standards during events, but it is risky. Some states bypass or suspend regulatory statutes and regulations during this time as well, but again they are taking a chance by doing this. Parameters have to be placed on the time frame in which those

suspensions are applicable. Again, a theme revolves around the concept of whether existing laws impairs the public health legal preparedness to respond to a disaster or emergency (Kamoie, et al, 2008, p. 26).

The Pandemic and All-Hazards Preparedness Act (PAHPA) was signed into law December 2006. This law is an extremely comprehensive legislative act that outlines legislative treatment of public health preparedness. Although PAHPA covers a wide variety of authority ranging from development and acquisition of medical countermeasures to alignment of preparedness, the most important part is that this act requires evidence-based benchmarks and objective performance standards. With that in mind a second theme has developed which is, “given the substantial body of legal authorities that now exist-relevant partners are implementing those authorities in a way that maximizes their effectiveness (Kamoie, et al, 2008, p. 26).”

International health regulation applies to public health legal preparedness on the global stage. The International Health Regulations (IHR) goal that was effective June 2007 focuses on legal attributes concerning the protection of citizens worldwide who may be involved in a public health emergency without interfering with travel and trade. These regulations are “consistent with the domestic evolution of public health legal preparedness.” Given the complexity of public health preparedness, law will remain an essential tool in public health practice (Kamoie, et al, 2008, p. 26).”

Bullard, Hogan, Penn, Ferris, Cleland, Stier, Davis, Allan, Van de Putte, Caine, Besser, and Gravely (2008), describes one of the four core elements of public health legal preparedness: laws and legal authorities; competency in using those laws; coordination of law-based public health actions; and information. “For effective public health

preparedness, there must be effective coordination of legal tools and law-based strategies across local, state, tribal and federal jurisdictions, and also across sectors such as public health, health care, emergency management, education, law enforcement, community design, and academia. Several man-made and natural disasters in the recent past made necessary to assess issues of gaps in coordinating legal authorities across sectors and jurisdictions. Those jurisdictions are inclusive of but not limited to public and private health, judiciary and court systems as well as federal, state and local governments. Others gaps and areas of concern are the use of mutual aid agreements and social distancing. Several needs were addressed during the National Summit on Public Health Legal Preparedness in June 2007. There were five fundamental principles that materialized from those discussions and include the need for:

1. “A legal framework appropriate to support continuity, stability, and efficiency in response efforts;
2. Transparent and streamlined communications in support of applications of the law to coordinated responses;
3. Trust and credibility among legal support partners and emergency responders;
4. Robust and dynamic partnerships among responders and organizations involved in the application of law-based interventions; and
5. Legal tools to ensure consistent responses across multiple sectors and jurisdictions (Bullard, et al, 2008, p. 57).”

There were several options that were presented that would help policy makers and practitioners as well as in moving toward full legal preparedness for all-hazards public health emergencies. Number one of the six overall options was coordinating public health

with health care providers. Several tasks were presented as options to complete. The first task was to provide additional liability protection after review of local, state and tribal law, if warranted to health care professionals who are required to respond in the case of an emergency response. The second task was to assess and if warranted improve the way jurisdictions “waive, suspend, modify, or flexibly apply laws and legal authorities related to health care service delivery (Bullard, et al, 2008).” The third task was to develop educational and training programs, in collaboration with bar associations, legal counsel and public health agencies that would focus on legal issues concerning operations over jurisdictional areas. Number five of the six overall options was Mutual Aid: EMAC and Key Gaps in Agreements.

“The Emergency Management Assistance Compact (EMAC) is the principal agreement for facilitating mutual aid among the states (Bullard, et al, 2008, p. 58).” EMAC addresses very broad issues such as liability, compensation, and expense reimbursement. While those issues are important during an all-hazards event and response there are several other key issues that come to light. EMAC does not include cross-border mutual aid agreements. EMAC only provides broad, general frameworks for aid within the 50 states. There were several fundamental principles that materialized from that discussion and they are inclusive of but not limited to:

1. “Analyze difference in state laws and procedures to determine legal gaps in EMAC coverage during declared emergencies, and utilize EMAC authority to enter into supplementary agreements to fill the gaps;

2. Conduct further analysis of the “Compact Clause” of the U.S. Constitution, in consultation with State Department attorneys, to fully comprehend the limits imposed on interstate and international mutual agreements;
3. Assess legal authorities to negotiate and execute cross-border mutual aid agreements between U.S. states, provinces of Canada, and states of Mexico;
4. Assess the need to enact laws to address legal liabilities of entities that have entered into mutual aid agreements for use of their facilities during emergencies, or whose facilities might be commandeered for emergency response activities, and to provide immunity to the facility for those purposes (Bullard, et al, 2008).

Multiple sectors and disciplines at every jurisdictional level must be involved to coordinate and strengthen the notable shortcomings in the area of public health legal preparedness. With the addition and engagement of a variety of relevant players the area of public health legal preparedness can be strengthened.

The Ebola outbreak was detected in southeastern regions of Guinea in March 2014. At the time, 49 cases and 29 deaths were reported to the World Health Organization (WHO). As of November 2, 2014, a total of 13,042 cases and 4,818 deaths were reported in Guinea, Liberia, Mali, Nigeria, Senegal, Sierra Leone, Spain, and the U. S. As of October 29, 2014, an additional 66 cases and 49 deaths are confirmed from a different viral strain in the Democratic Republic of Congo. On October 6, 2014, the first known case of Ebola contracted outside of Africa was reported in Spain. Continued global spread of Ebola is projected absent rapid interventions (CDC, 2014).

The recent cases of actual or suspected Ebola infection in the U.S. called for a review and revamp of isolation and quarantine laws. States have the legal authority to isolate or quarantine those exposed or already ill with the Ebola Virus Disease. However, the U.S. Constitution, requires that the use of the power of public health authority to protect the general public and is balanced against the individual's rights to autonomy and liberty. Court cases that date back to 1905 (*Jacobson v. Massachusetts*) (Fidler, Gostin and Markel, 2007) require that any action taken by the government to prevent a public health emergency must be proportional, which mean that the action does not unnecessarily invade personal liberties. If there is a justification of limitation on these liberties, the law requires states to weigh the risk of harm to others against the burdens on those individuals subject to isolation or quarantine. Quarantine, isolation, and travel restrictions are social distancing measures. Social distancing can be defined as “the extent to which individuals or groups are removed from or excluded from participating in one another's lives (Random House, 2015). Actions taken to protect public health have not always been based on the scientific evidence. An example of this would be quarantine imposed for a questionable outbreak of “bubonic plague” in San Francisco, and administered, in the view of the court with an “evil eye and an unequal hand,” (*Jew Ho v. Williamson*, 1900). In review of that case, there was a quarantine that followed hard evidence of the plague. This quarantine was singled out, targeted and predominately implemented for the Chinese community. The evidence in that case showed that the measures would not have helped decrease the number of cases within the community but rather harm the community further. The case further noted and noted that “restrictions on

liberty in the name of public health which are not based on reason will undermine the credibility and ability of public health authority.”

In the Ebola crisis, the Maine District court reviewed a challenge to the quarantine of a nurse who returned to the U.S. from caring for Ebola patients in Sierra Leone, and was quarantined in first New Jersey and then in Maine. The judge balanced the scientific evidence of public risk and ruled that Maine had not met its burden to show that it was necessary to quarantine the nurse to protect others from infection. The medical information provided by state and federal medical experts revealed that the nurse did not present a risk to others because she was asymptomatic and could not infect others with Ebola. However, the court did allow reasonable conditions and restraints to be imposed, including direct monitoring, limitations and notifications to health authorities with respect to travel and notification of any symptoms.

CHAPTER IV

THE HYPOTHESIS/METHODOLOGY

Through a qualitative content analysis of the laws and statutes of LA and TX, this research will answer the following research question: How do current federal and state emergency preparedness public health laws for Louisiana and Texas affect the public health system's ability to allow standardized response to isolation and quarantine in Ebola response? This content analysis will be used to capture the essence of the phenomena being studied and to summarize content, thus allowing the author to remove subjectivity from summaries and to simplify the detection of trends. The research model in Figure 2, shows the basic process of qualitative content analysis from the initial theory to the final analysis and interpretation.

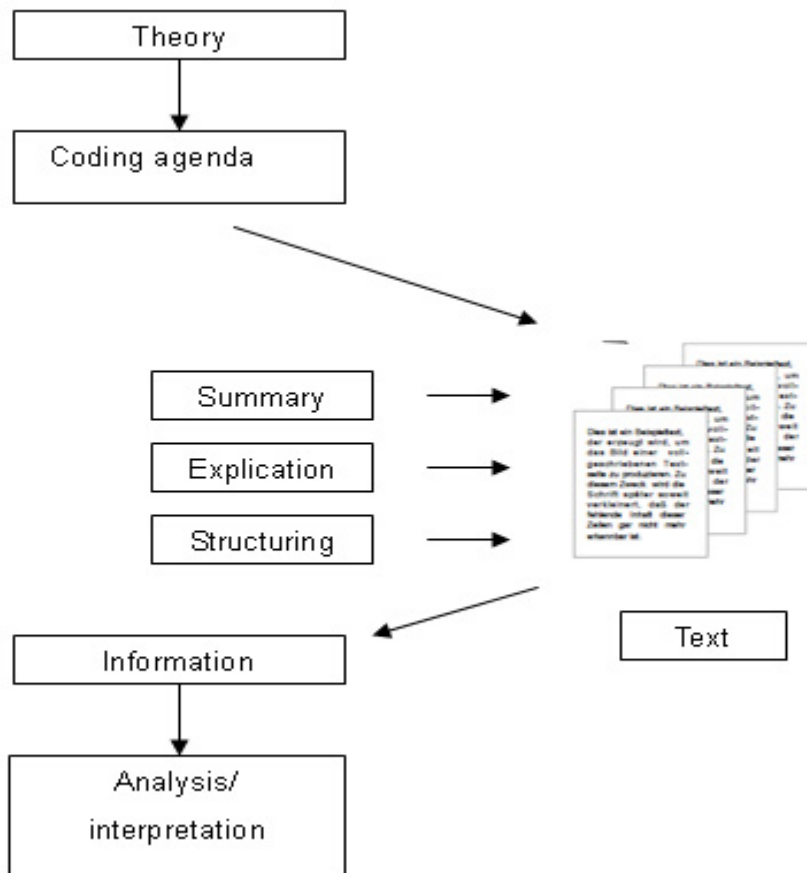


Figure 2. Basic proceeding of qualitative content analysis (Source: Author based on GLÄSER & LAUDEL, 1999, p.4) [58].

Because there was little empirical research from which a specific hypothesis could be formulated, a framework adopted from Mendez et al., 2003, was used. This framework assumes the general public, public health officials, and lawmakers do not necessarily have an accurate understanding of the key legal elements or requirements in emergency public health preparedness laws, but are more likely to be influenced by a perception of what they believe the legal environment to be. An objective legal environment means that there is specific legislation, regulations, and judicial decisions that provide the organizational structure and authority for public health preparedness

initiatives. For example, all states have enacted legislation granting authority for quarantine and isolation to prevent the spread of infectious disease. In contrast, the perceived legal environment reflects practitioners’ understanding or interpretation of the objective legal environment. Perceptions can be individuals’ preconceptions or misperceptions of what the law entails, or misinterpretations of legal guidance.

Prior research found that Core Elements of Legal Preparedness helps explain how policy makers respond to or depart from specific legal requirements (Jacobson and Wasserman, 1999; Mendez et al., 2003) and represents an effective mechanism for thinking about the complex relationships between federal and state law (federalism) and program implementation. These elements are also helpful in identifying the factors that explain the inevitable gaps between the objective and perceived legal environments. In this context, the construct of legal preparedness provides a framework for considering the potential gaps. Benjamin and Moulton (2008) argue that four core elements must be addressed to achieve emergency public health legal preparedness (Table 1).

Table 1

Core Elements of Legal Preparedness

Element	Description
Laws and legal authority	Statutes, regulations, and ordinances are foundational to public health legal preparedness.
Effective use of laws	Public health officials must know the legal powers they have and how best to apply them.
Coordination of legal interventions across jurisdictions	Public health agencies must respond to public health emergencies, often across multiple jurisdictions or sectors.
Information resources and dissemination	Guidelines are needed to establish public health laws in jurisdictions, update new laws, and provide best practices to support action.

Comparative case studies.

After reviewing the relevant federal and state laws for Louisiana and Texas as well as agency policies, and funding mechanisms that create the objective legal environment, a multiple-state/site qualitative case study will be used to determine how state and local public health and emergency management agencies are responding to emerging infectious disease threats, bioterrorism, and other public health preparedness challenges, and how federal and state laws are shaping those responses. In each of the two states, legal documents will be accessed for qualitative components of the study based on isolation and quarantine statutes.

Qualitative research design.

A qualitative assessment of strategically selected emergency preparedness officials, and law associates limited in size (based on affirmative responses to being interviewed) will be interviewed to determine responses to questions designed to explain law perspectives and state relationships. In the process, this qualitative assessment will inform the development of the author's perspective of perceived law and the state's ability to carry out its inherent responsibilities. Qualitative participants that are responsive may be requested to provide more information in the process for enhanced understanding and clarification purposes.

Recruitment of participants.

Participants will be recruited for the qualitative component of the study based on state emergency preparedness title with geographic considerations. Subject matter experts include but are not limited to, county and city health officials, state emergency preparedness directors, public health law directors, as well state and territorial health

officials. In the qualitative phase, consideration will be given if they have leadership in the decision making of public health law. The aforementioned representatives will be invited to participate through random selection for qualitative assessment. To identify the participants to be invited, the researcher accessed the active members of the National Association of County and City Health Officials (NAACHO), Association of State and Territorial Health Officials (ASTHO) and the Public Health Law Program, Office for State, Tribal, Local and Territorial Support Centers for Disease Control and Prevention

Method and size.

The primary methods for collecting qualitative data will be telephone, and electronic mail (email). Because of the availability of these busy officials, telephone and email interviews will be accepted to accommodate schedules. Interviews will be recorded, coded, and transcribed should additional inquiry be necessary.

Qualitative instrument and data collection.

The assessment will seek information to answer established background research questions through discussion in an open ended environment. The research instrument will follow interview standard protocols. Names of participants will not be identified and no specific identifiers will be used. Specific responses will not be shared with individual sources identified. Notes will be sealed and secured during and following the research process. All notes will be destroyed properly following the process. The primary researcher will conduct all qualitative interviews if necessary.

Setting.

The setting for this study was dynamic in that it took place in the most convenient place for the participants, (i.e., their homes, offices, or an elective setting) to ensure maximum participation.

Sample.

The Public Health Law Center is the principal association that addresses the collective laws for states. The Center employs over 10 attorneys of diverse legal backgrounds and there are numerous members of the Public Health Law Association covering the United States. Municipalities in Louisiana and Texas coexist within the structure of the individual states Department of Health.

Data analysis.

The qualitative data was collected, reviewed, and coded before interpreting. Only the most relevant information was addressed in the final analysis. Following the analysis, interpretation was made to form a position as it relates to the research question.

Validity, reliability, and bias.

Effort was taken to establish content validity and construct validity. This was determined after the field review of the instrument was conducted. The dissertation committee reviewed the instrument to ensure a concerted effort is to reduce bias from the study.

Ethical considerations.

Because a public employee was the principal investigator conducting this research in the public sector, the highest ethical standards were critical to avoid a perception of self-promotion of the investigator, the current administration, or the participants. More importantly, for the outcomes to have value to the public, confidence that the data and process to collect it was not manipulated to result in a preferred outcome. It was predetermined that the results and publication efforts would be embargoed for the maximum time allowed by university policy.

Protection of participants.

Given the requirements of ethical research, confidentiality was guaranteed to all participants. During analysis of responses of there were no identifiers used that may have led to the identification of the participants.

Protection of the researcher.

The principal researcher for this study is a classified state of Louisiana employee with leadership and responsibilities within the Department of Health and Hospitals, Office of Public Health. Therefore, care was taken to ensure that no policy pronouncements were made resulting from this research. Furthermore, there were no individual judgments made regarding policy positions taken by the previous or current administrations.

CHAPTER V

ANALYSIS, RESULTS & DISCUSSION

Public health law should ensure that public health agencies are fully capable of responding to current and impending health threats, which was the purpose of this study. An analytical review of the words, phrases, or sentences of the isolation and quarantine laws of Louisiana and Texas was conducted. The study analyzed the concepts of each states' isolation and quarantine laws with regard to Ebola response. Qualitative data were collected through semi-structured interviews (questions sent out for response) with emergency preparedness response leaders.

The researcher coded for single words and phrases in the isolation and quarantine laws of Louisiana and Texas, as well as for all positive and negative words that appear. This allowed new, important material to be incorporated into the coding process that could have significant bearings on the results. Words were counted once, regardless of the number of times they appear in the text. The level of generalization will allow concepts to be recorded as the same even when they appear in different forms.

Demographic Data

Louisiana, the 18th state of the Union. Louisiana has a population of over 4.5 million people. Its largest cities are New Orleans, Baton Rouge (capital), Shreveport, Lafayette, and Lake Charles. It is located in the southeastern region of the United States between Texas and Mississippi, and below Arkansas, and above the Gulf of Mexico. Louisiana has a distinct heritage of Native American, French, Spanish and African settlers. Unlike any other state, Louisiana is divided into 64 parishes, instead of counties, because of its early Roman Catholic roots through early Spanish and French settlers. In addition, Louisiana is prone to natural disasters such as hurricanes, tornadoes, flooding, primarily because of its location near the Gulf of Mexico.

The largest of these was Hurricane Katrina, a Category Three hurricane when it made landfall on August 29, 2005. Eighty percent of New Orleans was flooded during Katrina and more than two million people were displaced in the region. Louisiana's topography consists of relatively flat lowlands, with the Mississippi river as its main waterway. The state is known for its large bayous, oxbow lakes and climate. The climate is humid subtropical with a rainy coast. Louisiana has strong, vibrant agricultural, energy, marine and tourism industries. It is the largest producer of sweet potatoes, rice and sugar cane; and a large producer of soybeans, cotton, dairy products, strawberries, hay, pecans, and, vegetables are also abundant in the state.

Texas, the 28th state of the Union, is the second largest state in area as well as population (approximately 25 million) (Texas State Facts, 2016). Its population is approximately 25 million. Though the capital of Texas is Austin, its largest city is

Houston. It is bordered by New Mexico, Oklahoma, Arkansas, Louisiana, Mexico and the Gulf of Mexico.

Texas' heritage is Native American, Indian, Spanish, and French. Texas has many universities and boasts an economy with high tech industries inclusive of but not limited to energy, computers, aerospace, and biomedical sciences. The topography of Texas is mostly coastal swamp, woods, plains, and low rolling hills. Texas has a varied climate due to its size, and is also prone to disasters such as wildfires, explosions, severe storms, flooding, and tornadoes.

Descriptions of the Sample

Participant information.

Participants included emergency preparedness leaders from Louisiana and Texas. Because of the sample size and economic factors, the researcher determined that an online questionnaire would be more effective and appropriate for collecting some of the qualitative data. Data were collected between November 2015 and February 2016. By February 10, 2016, questionnaires were received from two emergency preparedness directors, for a return rate of 100%. No identifiers were used.

Emergency preparedness personnel in Louisiana and Texas were given a series of frequently asked questions concerning isolation and quarantine. The first set of questions included general information and the questions were as follows:

- What is the historical context for isolation and quarantine in your state?
- How are isolation and quarantine defined in your state?
- When are isolation and quarantine used in your state?
- What are the laws that govern isolation and quarantine in your state?

The second set of questions were local board of health-related questions and they are as follows:

- Are isolation and quarantine voluntary?
- Who is responsible for enforcement?
- Should local boards of health pass their own isolation/quarantine regulations?
- Who can answer local board of health legal questions?
- How long does isolation and quarantine last?
- Where do isolation and quarantine occur?
- What happens if someone refuses to comply with isolation or quarantine?
- Is there protection legally for a health agent from being sued by a person forced into isolation or quarantine?

The third set of questions were regarding the rights of individuals, and are noted below:

- What about the rights of the individual?
- What are “least restrictive measures” and the “least restrictive setting?”
- How are least restrictive measures/settings applied in a home isolation case and what happens when they do not work?
- What kinds of support are needed by people who are isolated or quarantined?

The fourth set of questions centered around the legal process and are as follows:

- Who actually issues the isolation and/or quarantine order?
- What are the steps to take to obtain a court order for isolation and quarantine?

- Should a person refusing to comply with an isolation and/or quarantine order be represented by an attorney in court?
- What happens after the local board of health and the Office of Public Health obtain the court order?

The next set of questions involve first responders:

- Who will transport people to isolation and quarantine facilities if necessary?
- Can an emergency response crew refuse to transport a person for the purposes of isolation?
- What is the legal requirement stating that all first responders must have a person designated for infection control activities?

The next set of questions involve disease monitoring. They are noted below:

- Who monitors to ensure that isolation and quarantine requirements are met?
- What happens or who is responsible if a disease crosses town lines or state lines?
- Is personal protective equipment (PPE) available for local board of health staff?

The next set of questions are school-related questions and they are as follows:

- Who prevails should there be a dispute between the local school district and the local board of health regarding exclusion of non-immunized children during a disease outbreak?
- During an infectious disease outbreak, does the local board of health have the authority to close a school where there are children who have been diagnosed with the disease causing the outbreak?
- Can transmission of a communicable disease, such as mumps, be prevented if a non-immunized, asymptomatic child wears a surgical mask at school?

- Is a public school required to provide educational services to a student who is isolated or quarantined at home or in the hospital?

The next set of questions involve cost measures:

- Who pays for isolation and quarantine?
- Are individuals eligible for lost wages while isolated or quarantined?
- Can an isolated or quarantined person sue for loss of income, pain, and suffering?

The next questions relate to the privacy rule:

- Does the HIPAA Privacy Rule prevent access to case information by local boards of health when they need it for isolation and quarantine?

Qualitative Sample Questionnaire Analysis

The sample consisted of two individual states isolation and quarantine laws.

A random sampling of emergency preparedness directors from Louisiana and Texas representing a diversity of race and gender was sought in this qualitative content analysis sampling. Although having a diverse population provides a more robust outcome of analysis, for the purposes of this content analysis, the data for these states is sufficient. Figure 3 represents what was demographically achieved in the qualitative assessment.

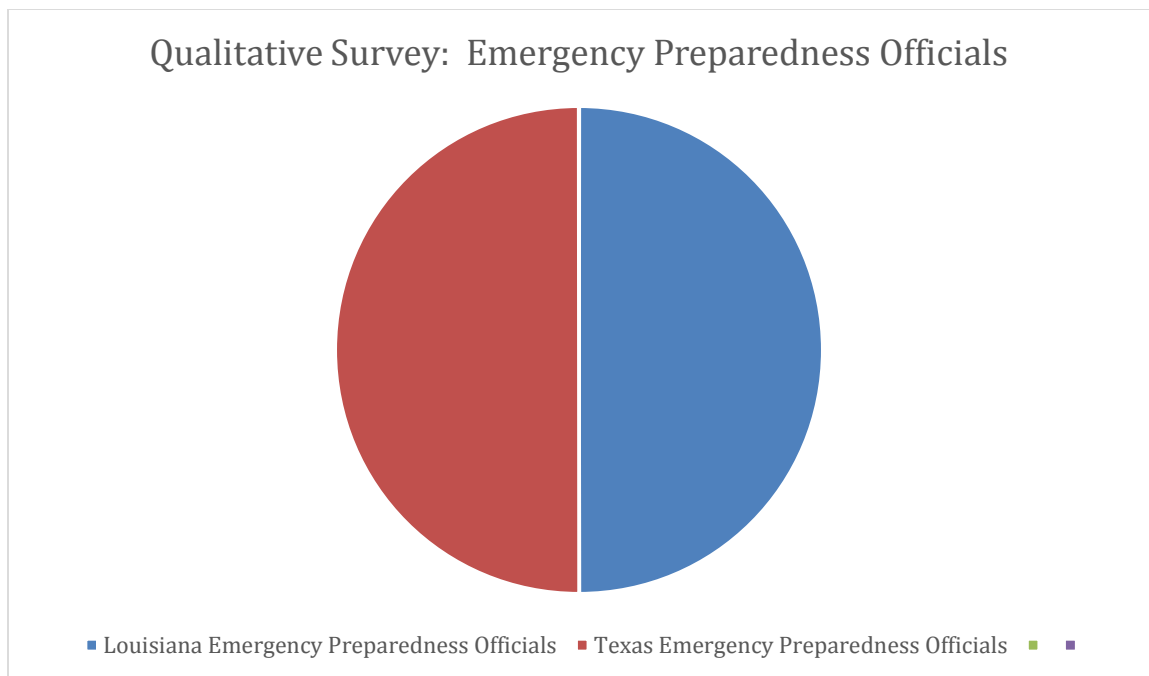


Figure 3. Qualitative Survey: Emergency Preparedness Officials.

The qualitative study asked a variety of questions to emergency preparedness officials, while others were designed to explore local boards of health processes, individuals' rights, legal processes, disease monitoring, costs, and privacy rules. The content of responses lead to the idea of the need for isolation and quarantine law reform or a new type of structure to coordinate or manage isolation and quarantine decisions. There was a significant number of duplicate responses. Additionally, there was a great number of responses that included the state health officer/health authority or county health officer in the decision making process.

The *general information* regarding isolation and quarantine had the most comments mentioned by participants. The contents of responses within this category of questions deal primarily with general information on the historical context of isolation

and quarantine, how isolation and quarantine are define and when isolation and quarantine are used.

The *local board of health* related received a large amount of commentary regarding enforcement responsibilities. Interestingly, both states concurred on the responsibility. Overall, the Department of Health State Department has authority that is concurrent with state and local health authorities. It is imperative that statutes are read carefully because some statutes give the local health authority or local government different authority from that given to the department or require different procedures to impose an authority's jurisdiction. Compliance with isolation and quarantine was also an issue as there was a difference in how each state addressed refusal to comply. While one state noted that addressed exemption from medical treatment for religious reasons the other did not. It was therefore noted that a person who requests religious exemption from medical treatment may be so exempted, but must still comply with an order for isolation or quarantine. Both states cited acts and statutes that protects legal agents from being sued by persons forced into isolation or quarantine. Both states are covered by Civil law.

The *rights of individuals* was a delicate subject as control measures may be implemented whenever the Department of Health or a health authority has reasonable cause to believe that an individual is will, has been exposed or is the carrier of a communicable disease. These statues are similar and only deal mainly with the recalcitrant client in involuntary treatment situations, but the vast majority of clients will be cooperative, and these methods will be unnecessary.

The *legal process* in both states is similar. A person may be subject to court order if he or she does not comply with the department's or health authority's order and the individual is infected or is reasonably suspected of being infected with a communicable disease that presents an immediate threat to public health.

The *privacy rule* or the Health Insurance Portability and Accountability Act (HIPAA) was never intended to impact public health activities such as surveillance, disease investigation, reporting of cases and contacts, and implementation and quarantine, according to emergency preparedness experts in Louisiana and Texas. However, in an instance of control measures the health authority would be authorized by law to receive records because of their duty to implement and enforce a law to protect the public's health. In Texas, the law requires a person to provide records and other information to the Health Department on request according to the department's written instructions.

Comparative Analysis of the Law

1. How do current federal and state emergency preparedness public health laws for Louisiana and Texas affect the public health system's ability to allow standardized response to isolation and quarantine in Ebola?

Based on the data findings, there was evidence suggesting that Louisiana and Texas laws greatly affect the public health system's ability to allow standardized response.

Evidence showed that each state has different isolation and quarantine policies. These differing isolation and quarantine policies make it difficult to allow a standardized response. Both Louisiana and Texas have isolation and quarantine policies that are between 35 and 100 years old. While states believe that they need updated policies, these

antiquated and outdated policies remain in place. Louisiana and Texas have policies that focus on a small number of specific diseases like Tuberculosis and Chickenpox. The limited number of specific diseases addressed in itself leads to difficulty in allowing standardized response. Both state's laws need to include more encompassing disease processes such as Category A and Category B emerging infectious diseases.

Additionally, the findings also so that in October 2014, eight (8) states had specific statutes for isolation and quarantine of people suspected of tuberculosis, but no state had statutes for any other specific diseases. Further more data revealed that fourteen (14) states maintained and developed stricter policies for personal protective equipment (PPE) than the CDC's guidance which created public confusion. Finally, the results in findings revealed that there was a difference in the transportation of patients infected with Ebola. Interstate transport of Ebola patients was handled by the state with CDC support and guidance. International transport of Ebola patients was handled by the U.S. Department of State. This difference in the level of transport in itself affects the public health system's ability to allow standardized response.

2. What did each state do for Ebola relative to the law concerning asymptomatic individuals vs. the normal sanitary code? Was it more or less restrictive/non-restrictive than the CDC's guidelines?

The CDC guidelines defined a category of high risk, some risk, low (not zero) risk, and no identifiable risk. High risk categories of asymptomatic individuals included percutaneous or mucous membrane exposure to blood or body fluids of a person with Ebola, exposure to the blood or body fluids of a person with Ebola while the person was symptomatic, processing blood or body fluids of person with Ebola while the person was

symptomatic without appropriate PPE or standard biosafety precautions, direct contact with a dead body without appropriate PPE in a country with widespread transmission or cases that were noted in urban settings that had questionable control measures, and having lived in the immediate household. Some risk referred to countries with widespread transmission or urban setting that had questionable control measures. Some risk included direct contact while using appropriate PPE with a person with Ebola while the person was symptomatic, direct patient care in other healthcare settings, close contacts (within 3 feet) in households, healthcare facilities, or community settings with a person with Ebola while the person was symptomatic. Low (but not zero) risk includes having been in a country with widespread transmission or cases in urban setting with questionable control measures within the past 21 days and having had no known exposures, having brief direct contact (not wearing appropriate PPE) with a person with Ebola while the person was in the early stage of disease, brief proximity, for a brief period of time, with a person with Ebola while the person was symptomatic, or in countries without widespread transmission or cases in urban settings with questionable control measures. No identifiable risk includes contact with an asymptomatic person who had contact with a person with Ebola, contact with a person with Ebola before the person developed symptoms, having been more than 21 days previously in a country with widespread transmission or cases in urban setting with questionable control measures, remaining on or in the immediate vicinity of an aircraft or ship during the entire time that the conveyance was present in a country with widespread transmission or cases in urban settings with uncertain control measures, and having had no direct contact with anyone from the community.

Louisiana, in comparison with the normal sanitary code, used an approach that was mandated by the Department of Health and Hospitals' Administration. Louisiana's approach was more restrictive than the CDC's guidelines, and used the screening and monitoring policies for asymptomatic individuals regardless of the risk category.

Texas, in comparison with their normal law, differed from the CDC guidelines as well. They also used an approach that was more restrictive than the CDC guidelines. Texas' guidelines were similar in nature when discussing high risk exposures, some risk exposures, low risk exposures, and no identifiable risk exposures. In high risk exposures a public health representative would meet the passenger in question at the airport and support a Do Not Board (DNB) issued by the CDC. The local health department would be notified and an in-home visit would occur within 12 hours of their notification. A control order would be issued, twice daily visualized temperature checks at least 6 hours apart for 21 days. Daily monitoring reports would be given to the Department of State Hospital Services (DSHS) Emerging and Acute Infectious Disease Branch. In some risk exposure a public health representative meets the passenger at the airport and retakes temperature, and interviews for risk factors. If the interview demonstrates to need to reassess the risk a consultation is completed the DSHS Emerging and Infectious Disease Branch. The state would support a Do Not Board if issued by the CDC. The local health department would be notified and an in-home visit would occur within 12 hours of notification. Twice daily visualized temperature checks would occur at least 6 hours apart for 21 days after departure from country. The patient would not be allowed to use public transportation or congregate in large settings or participate in activities in a large setting area. Daily outcomes of monitoring would be reported to the DSHS Emerging and Acute

Infectious Disease Branch. In low risk exposure the local health department would be notified and an in-home visit and risk interview within 12 hours of notification would be completed. If the interview demonstrates the need to reassess risk, a consultation with DSHS Emerging and Acute Infectious Disease Branch would occur. If elevation of risk is agreed upon, then the higher risk category instructions would be followed. Twice daily temperature check at least 6 hours apart for 21 days after departure from country. Daily monitoring outcomes will be reported to DSHS Emerging and Acute Infectious Disease Branch. Finally, if there is no identifiable risk exposure then no monitoring would occur.

2. What is the State's Sanitary Code/Law vs. Federal law (CDC guidelines)?

LOUISIANA LAW

LA Title 51 Public Health-Sanitary Code Part II. The Control of Diseases

The Louisiana State Sanitary Code RS. 40.6 states that "isolation is the separation for the period of communicability of infected persons from other persons, in such places and under such conditions as will prevent the direct or indirect conveyance of the infectious agent from infected persons to persons who are susceptible or who may spread the agent to others." "Quarantine" is the limitation of freedom of movement of such well persons or domestic animals as have been exposed to a communicable disease for a period of time equal to the longest usual incubation period of the disease, in such manner as to prevent effective contact with those not so exposed. NOTE: In connection with the control of communicable diseases, the term quarantine is the frequently used interchangeably with the term isolation as defined above in this Paragraph. At times, the two terms may be used together, as in an isolation/quarantine order pursuant to R.S. R0:4

(A) (13), and further pursuant to §§117-121 in the body of this Part in this code pertaining to the Control of Diseases.

§105. Reportable Diseases and Conditions [formerly paragraph 2:003]

A. The following diseases or conditions are hereby declared reportable with reporting requirements by class.

a. Class A Diseases or Conditions which Shall Require Reporting within 24 Hours

i. Class A disease or conditions include diseases or conditions of major public health concern because of the severity of the disease or condition and the potential for epidemic spread. Class A diseases or conditions shall be reported to the Office of Public Health by telephone (or in an another electronic format acceptable to the Office of Public Health) immediately upon recognition that a case, a suspected case, or a positive laboratory result is known. In addition, all cases of rare or exotic communicable disease, unexplained death, unusual cluster of disease and all outbreaks shall be reported. Any class A disease or condition, rare or exotic communicable disease, unexplained death, or unusual cluster of disease and any disease outbreak, shall be reported to the Office of Public Health as soon as possible but no later than 24 hours from recognition that a case, a suspected case, a positive laboratory result, an unexplained death, an unusual cluster of disease, or a

disease outbreak is known. The following disease or conditions shall be classified as class A for reporting requirements:

1. Acute flaccid paralysis;
2. Anthrax;
3. Avian or novel strain influenza A (initial detection);
4. Botulism;
5. Brucellosis;
6. Cholera;
7. *Clostridium perfringens* food borne infection;
8. Diphtheria;
9. Fish or shellfish poisoning (domoic acid poisoning, neurotoxic shellfish poisoning, ciguatera, paralytic shellfish poisoning, scombroid);
10. Food-borne infection;
11. *Haemophilus influenza* (invasive infection);
12. Influenza-associated mortality;
13. Measles (rubeola imported or indigenous);
14. *Neisseria meningitides* (invasive infection);
15. Outbreaks of any infectious diseases;
16. *Pertussis*;
17. Plague (*Yersinia pestis*);
18. Poliomyelitis (paralytic and non-paralytic);
19. Q fever (*Coxiellaburnetii*);

20. Rabies (animal and human);
21. Ricin poisoning;
22. Rubella (congenital syndrome);
23. Rubella (German measles);
24. Severe acute respiratory syndrome-associated coronavirus (SARS-CoV);
25. *Staphylococcus aureus*, vancomycin intermediate or resistant (VISA/VRSA);
26. Staphylococcal enterotoxin B (SEB) pulmonary poisoning;
27. Smallpox;
28. Tularemia (*Francisellatularensis*);
29. **Viral hemorrhagic fever;(EBOLA)** and
30. Yellow fever.

§117. Disease Control Measures including Isolation/Quarantine [formerly paragraph 2:011]

- A. Individual suspected of being cases or carriers of a communicable disease, or who have been exposed to communicable disease, and who in the opinion of the state health officer may cause serious threat to public health, shall either submit to examination by a physician and to the collection of appropriate specimens as may be necessary or desirable in ascertaining the infectious status of the individual, or be placed in isolation or under quarantine as long as his or her status remains undetermined. Specimens collected in compliance with this Section shall be

examined either by a state laboratory free of charge or by a laboratory approved by the state health officer at the individual's own expense.

- B. [formerly paragraph 2:014] It shall be the duty of the state health officer or his or her duly authorized representative to promptly institute necessary control measures whenever a case of communicable disease occurs.
- C. [formerly paragraph 2:015] The state health officer or his or her duly authorized representative is hereby empowered and it is made his or her duty, whenever a case of communicable disease occurs in any household or place, and it is in his or her opinion, necessary or advisable that person residing therein shall be kept from contact with the public, to declare the house, building, apartment, room, or place where the case occurs, a place of quarantine, and to require that only persons so authorized by the state health officer shall leave or enter said quarantined place during the period of quarantine.
- D. [formerly paragraph 2:016] Whenever a disease of international or interstate epidemic significance occurs in any community within or outside the state of Louisiana, the state health officer shall, if in his or her opinion, it is necessary, proclaim and institute a quarantine of the locality in which the said disease prevails and shall formulate and publish rules and regulations to carry out such quarantine effectively; which rules and regulations shall have the same force and authority as this code and shall remain in force until rescinded by proclamation of the state health office.
- E. [formerly paragraph 2:017] It is a violation of this code for any person to enter or leave any quarantined area in the state of Louisiana, or to enter from any

quarantined area without the state of Louisiana except by permission of the state health officer.

- F. [formerly paragraph 2:018] No person shall interfere with, conceal, mutilate or tear down any notices or placard placed on any house, building, or premises by the state health officer. Such placards shall be removed only on authority of the state health officer.

TEXAS LAW

Health and Safety Code

Title 2. Health

Subtitle D. Prevention, Control, and Reports of Diseases

Chapter 81. Communicable Disease

Subchapter A. General Provisions

Sec. 81.002. Responsibility of State and public. The state has a duty to protect the public health. Each person shall act responsibly to prevent and control communicable disease.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989.

SUBCHAPTER C. REPORTS AND REPORTABLE DISEASE

Sec. 81.041. REPORTABLE DISEASES. (a) The executive commissioner shall identify each communicable disease or health condition that shall be reported under this chapter.

(b) The executive commissioner shall classify each reportable disease according to its nature and the severity of its effect on the public health.

(c) The executive commissioner shall maintain and revise as necessary the list of reportable diseases.

(d) The executive commissioner may establish registries for reportable diseases and other communicable diseases and health conditions. The provision to the department of information relating to a communicable disease or health condition that is not classified as reportable is voluntary only.

(e) Acquired immune deficiency syndrome and human immunodeficiency virus infection are reportable disease under this chapter for which the executive commissioner shall require reports.

(f) In a public health disaster, the commissioner may require reports of communicable diseases or other health conditions from providers without the adoption of a rule or other action by the executive commissioner. The commissioner shall issue appropriate instructions relating to complying with the reporting requirements of this section.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003c 78th Leg., ch. 198, Sec. 2.170, eff. Sept. 1, 2003. Amended by:

Acts 2015, 84th Leg., R.S., Ch. 1 (S.B. 219), Sec. 3.0223, eff. April 2, 2015.

SUBCHAPTER E. CONTROL

Sec. 81.081. DEPARTMENT'S DUTY. The department shall impose control measures to prevent the spread of disease in the exercise of its power to protect the public health.

Acts 1989, 71 Leg., sh. 678, Sec. 1, eff. Sept. 1, 1989.

Amended by:

Acts 2015, 84th Leg., R.S., Ch. 1 (S.B. 219), Sec. 3.0232, eff. April 2, 2015.

Sec. 81.082 ADMINISTRATION OF CONTROL MEASURES. (a) A health authority has supervisory authority and control over the administration of communicable disease control measures in the health authority's jurisdiction unless specifically preempted by

the department. Control measures imposed by a health authority must be consistent with, and at least as stringent as, the control measure standards in rules adopted by the executive commissioner.

(b) A communicable disease control measure imposed by a health authority in the health authority's jurisdiction may be amended, revised, or revoked by the department if the department finds that the modification is necessary or desirable in the administration of a regional or statewide public health program or policy. A control measure imposed by the department may not be modified or discontinued until the department authorizes the action.

(c) The control measures may be imposed on an individual, animal, place, or object, as appropriate.

(c-1) A health authority may designate health care facilities within the health authority's jurisdiction that are capable of providing services for the examination, observation, quarantine, isolation, treatment, or imposition of control measures during a public health disaster or during an area quarantine under Section 81.085. A health authority may not designate a nursing facility or other institution licensed under Chapter 242.

(d) A declaration of a public health disaster may continue for not more than 30 days. A public health disaster may be renewed one time by the commissioner for an additional 30 days.

(e) The governor may terminate declaration of a public health disaster at any time.

(f) In this section, "control measures" includes:

- (1) immunization;
- (2) detention;
- (3) restriction;
- (4) disinfection;
- (5) decontamination;
- (6) isolation;
- (7) quarantine;
- (8) disinfestation;
- (9) chemoprophylaxis;
- (10) preventive therapy;
- (11) prevention; and
- (12) education.

Acts 1989, 71st Leg., ch. 678, Sec.1, eff. Sept. 1, 1989, Amended by Acts 1991, 72nd Leg., ch. 14, Sec.20, eff. Sept.1, 1991; Acts 2003, 78th Leg., ch. 198, Sec. 2.179, eff. Sept. 1, 2003.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 258 (S.B. 11), Sec. 14.01, eff. September 1, 2007.

Acts 2015, 84th Leg., R.S., Ch. 1 (S.B. 219), Sec. 3.0233, eff. April 2, 2015.

Sec. 81.083.APPLICATION OF CONTROL MEASURES TO
INDIVIDUAL.

(a) Any person, including a physician, who examines or treats an individual who has a communicable disease shall instruct the individual about:

(1) measures for preventing reinfection and spread of the disease; and

(2) the necessity for treatment until the individual is cured or free from the infection.

(b) If the department or a health authority has reasonable cause to believe that an individual is ill with, has been exposed to, or is the carrier of a communicable disease, the department or health authority may order the individual, or the individual's parent, legal guardian, or managing conservator if the individual is a minor, to implement control measures that are reasonable and necessary to prevent the introduction, transmission, and spread of the disease in this state.

(c) An order under this section must be in writing and be delivered personally or by registered or certified mail to the individual or to the individual's parent, legal guardian, or managing conservator if the individual is a minor.

(d) An order under this section is effective until the individual is no longer infected with a communicable disease or, in the case of a suspected disease, expiration of the longest usual incubation period for the disease.

(e) An individual may be subject to court orders under Subchapter G if the individual is infected or is reasonably suspected of being infected with a communicable disease that presents an immediate threat to the public health and:

(1) the individual, or the individual's parent, legal guardian, or managing conservator if the individual is a minor, does not comply with the written orders of the department or a health authority under this section; or

(2) a public health disaster exists, regardless of whether the department or health authority has issued a written order and the individual has indicated that the individual will not voluntarily comply with control measures.

(f) An individual who is the subject of court orders under Subchapter G shall pay the expense of the required medical care and treatment except as provided by Subsections (g)-(i).

(g) A county or hospital district shall pay the medical expenses of a resident of the county or hospital district who is:

(1) indigent and without the financial means to pay for part or all of the required medical care or treatment; and

(2) not eligible for benefits under an insurance contract, group policy, or prepaid health plan, or benefits provided by a federal, state, county, or municipal medical assistance program or facility.

(h) The state may pay the medical expenses of a nonresident individual who is:

(1) indigent and without the financial means to pay for part or all of the required medical care and treatment; and

(2) not eligible for benefits under an insurance contract, group policy, or prepaid health plan, or benefits provided by a federal, state, county, or municipal medical assistance program.

(i) The provider of the medical care and treatment under Subsection (h) shall certify the reasonable amount of the required medical care to the comptroller. The comptroller shall issue a warrant to the provider of the medical care and treatment for the certified amount.

(j) The department may:

(1) return a nonresident individual involuntarily hospitalized in this state to the program agency in the state in which the individual resides; and

(2) enter into reciprocal agreements with the proper agencies of other states to facilitate the return of individuals involuntarily hospitalized in this state.

(k) If the department or a health authority has reasonable cause to believe that a group of five or more individuals has been exposed to or infected with a communicable disease, the department or health authority may order the members of the group to implement control measures that are reasonable and necessary to prevent the introduction, transmission, and spread of the disease in this state. If the department or health authority adopts control measures under this subsection, each member of the group is subject to the requirements of this section.

(l) An order under Subsection (k) must be in writing and be delivered personally or by registered or certified mail to each member of the group, or the member's parent, legal guardian, or managing conservator if the member is a minor. If the name, address, and county of residence of any member of the group is unknown at the time the order is issued, the department or health authority must publish notice in a newspaper of general circulation in the county that includes the area of the suspected exposure and any other county in which the department or health authority suspects a member of the group resides. The notice must contain the following information:

(1) that the department or health authority has reasonable cause to believe that a group of individuals is ill with, has been exposed to, or is the carrier of a communicable disease;

(2) the suspected time and place of exposure to the disease;

(3) a copy of any orders under Subsection (k);

(4) instructions to an individual to provide the individual's name, address, and county of residence to the department or health authority if the individual knows or reasonably suspects that the individual was at the place of the suspected exposure at the time of the suspected exposure;

(5) that the department or health authority may request that an application for court orders under Subchapter G be filed for the group, if applicable; and

(6) that a criminal penalty applies to an individual who:

(A) is a member of the group; and

(B) knowingly refuses to perform or allow the performance of the control measures in the order.

(m) A peace officer, including a sheriff or constable, may use reasonable force to:

(1) secure the members of a group subject to an order issued under Subsection (k); and

(2) except as directed by the department or health authority, prevent the members from leaving the group or other individuals from joining the group.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 198, Sec. 2.180, eff. Sept. 1, 2003.

Amended by:

Acts 2007, 80th Leg., R.S., Ch. 258 (S.B. [11](#)), Sec. 14.02, eff. September 1, 2007.

Acts 2013, 83rd Leg., R.S., Ch. 314 (H.B. [1690](#)), Sec. 2, eff. June 14, 2013.

Sec. 81.084. APPLICATION OF CONTROL MEASURES TO PROPERTY.

(a) If the department or a health authority has reasonable cause to believe that property in its jurisdiction is or may be infected or contaminated with a communicable disease, the department or health authority may place the property in quarantine for the period necessary for a medical examination or technical analysis of samples taken from the property to determine if the property is infected or contaminated. The department or health authority may tag an object for identification with a notice of possible infection or contamination.

(b) The department or health authority shall send notice of its action by registered or certified mail or by personal delivery to the person who owns or controls the property. If the property is land or a structure or an animal or other property on the land, the department or health authority shall also post the notice on the land and at a place convenient to the public in the county courthouse. If the property is infected or contaminated as a result of a public health disaster, the department or health authority is not required to provide notice under this subsection.

(c) The department or health authority shall remove the quarantine and return control of the property to the person who owns or controls it if the property

is found not to be infected or contaminated. The department or health authority by written order may require the person who owns or controls the property to impose control measures that are technically feasible to disinfect or decontaminate the property if the property is found to be infected or contaminated.

(d) The department or health authority shall remove the quarantine and return control of the property to the person who owns or controls it if the control measures are effective. If the control measures are ineffective or if there is not a technically feasible control measure available for use, the department or health authority may continue the quarantine and order the person who owns or controls the property:

(1) to destroy the property, other than land, in a manner that disinfects or decontaminates the property to prevent the spread of infection or contamination;

(2) if the property is land, to securely fence the perimeter of the land or any part of the land that is infected or contaminated; or

(3) to securely seal off an infected or contaminated structure or other property on land to prevent entry into the infected or contaminated area until the quarantine is removed by the department or health authority.

(d-1) In a public health disaster, the department or health authority by written order may require a person who owns or controls property to impose control measures that are technically feasible to disinfect or decontaminate the property or, if technically feasible control measures are not available, may order the person who owns or controls the property:

(1) to destroy the property, other than land, in a manner that disinfects or decontaminates the property to prevent the spread of infection or contamination;

(2) if the property is land, to securely fence the perimeter of the land or any part of the land that is infected or contaminated; or

(3) to securely seal off an infected or contaminated structure or other property on land to prevent entry into the infected or contaminated area until the department or health authority authorizes entry into the structure or property.

(e) The department or health authority may petition the county or district court of the county in which the property is located for orders necessary for public health if:

(1) a person fails or refuses to comply with the orders of the department or health authority as required by this section; and

(2) the department or health authority has reason to believe that the property is or may be infected or contaminated with a communicable disease that presents an immediate threat to the public health.

(f) After the filing of a petition, the court may grant injunctive relief for the health and safety of the public.

(g) The person who owns or controls the property shall pay all expenses of implementing control measures, court costs, storage, and other justifiable expenses. The court may require the person who owns or controls the property to execute a bond in an amount set by the court to ensure the performance of any control measures, restoration, or destruction ordered by the court. If the property is an object, the bond may not exceed the value of the object in a noninfected or

non-contaminated state. The bond shall be returned to the person when the department or health authority informs the court that the property is no longer infected or contaminated or that the property has been destroyed.

(h) If the court finds that the property is not infected or contaminated, it shall order the department or health authority to:

- (1) remove the quarantine;
- (2) if the property is an object, remove the quarantine tags; and
- (3) release the property to the person who owns or controls it.

(i) The department or health authority, as appropriate, shall charge the person who owns or controls the property for the cost of any control measures performed by the department's or health authority's employees. The department shall deposit the payments received to the credit of the general revenue fund to be used for the administration of this chapter. A health authority shall distribute payments received to each county, municipality, or other jurisdiction in an amount proportional to the jurisdiction's contribution to the quarantine and control expense.

(j) In this section, "property" means:

- (1) an object;
- (2) a parcel of land; or
- (3) a structure, animal, or other property on a parcel of land.

(k) In a public health disaster, the department or a health authority may impose additional control measures the department or health authority considers

necessary and most appropriate to arrest, control, and eradicate the threat to the public health.

(1) A peace officer, including a sheriff or constable, may use reasonable force to:

(1) secure a property subject to a court order issued under this section;

and

(2) except as directed by the department or health authority, prevent an individual from entering or leaving the property subject to the order.

Acts 1989, 71st Leg., ch. 678, Sec. 1, eff. Sept. 1, 1989. Amended by Acts 2003, 78th Leg., ch. 198, Sec. 2.181, eff. Sept. 1, 2003.

Amended by:

Acts 2013, 83rd Leg., R.S., Ch. 314 (H.B. [1690](#)), Sec. 3, eff. June 14, 2013.

Acts 2015, 84th Leg., R.S., Ch. 1 (S.B. [219](#)), Sec. 3.0234, eff. April 2, 2015.

FEDERAL LAW-CODE OF FEDERAL REGULATIONS (CDC Guidelines)

Part 70- Interstate quarantine

§ 70.2 Measures in the event of inadequate local control.

Whenever the Director of the Centers for Disease Control and Prevention determines that the measures taken by health authorities of any State or possession (including political subdivisions thereof) are insufficient to prevent the spread of any of the communicable diseases from such State or possession to any other State or

possession, he/she may take such measures to prevent such spread of the diseases as he/she deems reasonably necessary, including inspection, fumigation, disinfection, sanitation, pest extermination, and destruction of animals or articles believed to be sources of infection.

§ 70.3 All communicable diseases.

A person who has a communicable disease in the communicable period shall not travel from one State or possession to another without a permit from the health officer of the State, possession, or locality of destination, if such permit is required under the law applicable to the place of destination. Stop-overs other than those necessary for transportation connections shall be considered as places of destination.

§ 70.4 Report of disease.

The master of any vessel or person in charge of any conveyance engaged in interstate traffic, on which a case or suspected case of a communicable disease develops shall, as soon as practicable, notify the local health authority at the next port of call, station, or stop, and shall take such measures to prevent the spread of the disease as the local health authority directs.

§ 70.5 Certain communicable diseases; special requirements.

The following provisions are applicable with respect to any person who is in the communicable period of cholera, plague, smallpox, typhus or yellow fever, or who, having been exposed to any such disease, is in the incubation period thereof: (a) *Requirements relating to travelers.* (1) No such person shall travel from one State or possession to another, or on a conveyance engaged in interstate traffic, without a written permit of the Surgeon General or his/her authorized representative. (2) Application for a

permit may be made directly to the Surgeon General or to his/her representative authorized to issue permits. (3) Upon receipt of an application, the Surgeon General or his/her authorized representative shall, taking into consideration the risk of introduction, transmission, or spread of the disease from one State or possession to another, reject it, or issue a permit that may be conditioned upon compliance with such precautionary measures as he/she shall prescribe. (4) A person to whom a permit has been issued shall retain it in his/her possession throughout the course of his/her authorized travel and comply with all conditions prescribed therein, including presentation of the permit to the operators of conveyances as required by its terms.

(b) Requirements relating to operation of conveyances. (1) The operator of any conveyance engaged in interstate traffic shall not knowingly: (i) Accept for transportation any person who fails to present a permit as required by paragraph (a) of this section; or (ii) Transport any person in violation of conditions prescribed in his/her permit. (2)

Whenever a person subject to the provisions of this section is transported on a conveyance engaged in interstate traffic, the operator thereof shall take such measures to prevent the spread of the disease, including submission of the conveyance to inspection, disinfection and the like, as an officer of the Public Health Service designated by the Surgeon General for such purposes deems reasonably necessary and directs.

§ 70.6 Apprehension and detention of persons with specific diseases.

Regulations prescribed in this part authorize the detention, isolation, quarantine, or conditional release of individuals, for the purpose of preventing the introduction, transmission, and spread of the communicable diseases listed in an Executive Order

setting out a list of quarantinable communicable diseases, as provided under section 361(b) of the Public Health Service Act. Executive Order 13295, of April 4, 2003, as amended by Executive Order 13375 of April 1, 2005, contains the current revised list of quarantinable communicable diseases, and may be obtained at <http://www.cdc.gov/quarantine> and http://www.archives.gov/federal_register. If this Order is amended, HHS will enforce that amended order immediately and update its Web site. [77 FR 75884, Dec. 26, 2012]

§ 70.7 Responsibility with respect to minors, wards, and patients.

A parent, guardian, physician, nurse, or other such person shall not transport, or procure or furnish transportation for any minor child or ward, patient or other such person who is in the communicable period of a communicable disease, except in accordance with provisions of this part.

§ 70.8 Members of military and naval forces.

The provisions of §§ 70.3, 70.4, 70.5, 70.7, and this section shall not apply to members of the military or naval forces, and medical care or hospital beneficiaries of the Army, Navy, Veterans Administration, or Public Health Service, when traveling under competent orders: *Provided*, That in the case of persons otherwise subject to the provisions of § 70.5 the authority authorizing the travel requires precautions to prevent the possible transmission of infection to others during the travel period.

§ 70.9 Vaccination clinics.

(a) The Director may establish vaccination clinics, through contract or otherwise, authorized to administer vaccines and/or other prophylaxis. (b) A vaccination fee may be charged for individuals not enrolled in Medicare Part B to cover costs associated with

administration of the vaccine and/or other prophylaxis. Such fee is to be collected at the time that the vaccine is administered. The vaccination fee, if imposed, is shown in the following table:

Table 2.

Vaccination Fee Assessment

Vaccine	Effective dates	Amount
Fluarix	11/25/05	\$25.00

1) Continuing for one year.

2) \$7.00 for the vaccine and \$18.00 for administration.

[70 FR 3493, Jan. 25, 2005]

Federal isolation and quarantine are authorized for the following diseases:

Cholera, Diphtheria, Infectious tuberculosis; Plague; Smallpox; Yellow fever; viral hemorrhagic fevers, severe acute respiratory syndromes, new types of flu (influenza) that could cause a pandemic. It is important that the President of the United States can revise this list by Executive Order. On the federal level isolation and quarantine helps protect the public by preventing exposure to people who have or may have contagious disease. In addition to serving as medical functions, isolation and quarantine also are “police power” functions, derived from the right of the state to take action affecting individuals for the benefit of society. The federal government defines isolation as the ability to separate sick people with a contagious disease from people who are not sick and quarantine as the ability to separate and restrict the movement of people who were exposed to a contagious disease to see if they become sick.

The federal government derives its authority for isolation and quarantine from the Commerce Clause of the U.S. Constitution. Under section 361 of the Public Health Service Act (42 U.S. Code § 264), the U.S. Secretary of Health and Human Services is authorized to take measures to prevent the entry and spread of communicable diseases from foreign countries into the United States and between states. The authority for carrying out these functions on a daily basis has been delegated to the Centers for Disease Control and Prevention (CDC). Under 42 Code of Federal regulations parts 70 and 71, CDC is authorized to detain, medically examine, and release persons arriving into the United States and traveling between states who are suspected of carrying these communicable diseases. As part of its federal authority, CDC routinely monitors persons arriving at U.S. land border crossings and passengers and crew arriving at U.S. ports of entry for signs or symptoms of communicable diseases. When alerted about an ill passenger or crew member by the pilot of a plane or captain of a ship, CDC may detain passengers and crew as necessary to investigate whether the cause of the illness on board is a communicable disease. States have police power functions to protect the health, safety, and welfare of persons within their borders. To control the spread of disease within their borders, states have laws to enforce the use of isolation and quarantine. These laws can vary from state to state and can be specific or broad. In some states, breaking a quarantine order is a criminal misdemeanor. Tribes also have police power authority to take actions that promote the health, safety, and welfare of their own tribal members. Tribal health authorities may enforce their own isolation and quarantine laws within tribal lands, if such laws exist.

If a quarantinable disease is suspected or identified, CDC may issue a federal isolation or quarantine order. Public health authorities at the federal, state, local, and tribal levels may sometimes seek help from police or other law enforcement officers to enforce a public health order. U.S. Customs and Border Protection and U.S. Coast Guard officers are authorized to help enforce federal quarantine orders. Breaking a federal quarantine order is punishable by fines and imprisonment. Federal law allows the conditional release of persons from quarantine if they comply with medical monitoring and surveillance.

Comparison of Louisiana, Texas, and Federal Isolation and Quarantine Law

While the federal government has authority to authorize quarantine and isolation under certain circumstances, the primary authority for quarantine and isolation exists at the state level as an exercise of the state's police power. CDC acknowledges this deference to state authority as follows. In general, CDC defers to the state and local health authorities in their primary use of their own separate quarantine powers. Based upon long experience and collaborative working relationships with our state and local partners, CDC continues to anticipate the need to use this federal authority to quarantine an exposed person only in rare situations, such as events at ports of entry or in similar time-sensitive settings.

Although every state has the authority to pass and enforce quarantine laws as an exercise of its police powers, these laws vary widely by state. Generally, state and local quarantines are authorized through public health orders, though some states may require a court order before an individual is detained. For example, in Louisiana, the state health officer is not authorized to "confine [a person] in any institution unless directed or

authorized to do so by the judge of the parish in which the person is located.” (Acts 1976 No. 346, §1, Citation LRS 40:15) Diseases subject to quarantine may be defined by statute, with some statutes addressing only a single disease, or the state health department may be granted the authority to decide which diseases are communicable and therefore subject to quarantine. States also employ different methods for determining the duration of the quarantine or isolation.

3. What is the comparison of State vs. State powers for Ebola?

Parish Health Officer

Louisiana-----Parish Health Officer----No parish health officer may establish quarantines without the approval of the state health officer, previously obtained, and the cooperation of the parish legislative body. The state health officer has supervisory power over all local quarantines so established (**Acts 1976 No. 346, §1, Citation LRS 40:15**).

Texas-----County Health Officer---The state of Texas has no laws referring to county health officers. However, Texas does have a law that refers to the Texas state health authority which may be similar to the LA state health officer as opposed to a parish health officer which would be similar to a county health officer (**Acts 1989 , 71stt Leg., ch.678, §1, eff. Sept. 1, 1989**) (**The Texas Statutes § 121.024**).

The Louisiana Department of Health and Hospitals, Office of Public Health (DHH-OPH) is the lead agency regarding isolation and quarantine and is responsible for the overall management of isolation and quarantine issues. The State Health Officer or designee, in consultation with public health officials, will determine the need for isolation and quarantine and request assets needed to carry out the mission whether it being the Louisiana National Guard (LANG) medical countermeasures, such as that of the Strategic

National Stockpile (SNS) or any other assets that may be needed. This request will be relayed to the Director of the Governor’s Office of Homeland Security and Emergency Preparedness (GOHSEP) and the Governor of Louisiana. The Governor of Louisiana has given the State Health Officer or designee authorization to request state and federal assets. This process is identified in GOHSEP’s Emergency Operations Plan. A listing of the DHH-OPH personnel who may act as the State Health Officer Designee is also listed in a Confidential Appendix B of GOHSEP’s Emergency Operations Plan.

In the state of Texas, “Health authority” means: (A) a physician appointed as a health authority under Chapter 121 (Local Public Health Reorganization Act) or the health authority’s designee; or (B) a physician appointed as a regional director under Chapter 121 (Local Public Health Reorganization Act) who performs the duties of a health authority or the regional director’s designee.

Texas-----Governing Body of a Type A General-Law Municipality----The governing body of a Type A general-law municipality may take any action necessary or expedient to promote health or suppress disease, including actions to prevent the introduction of a communicable disease into the municipality, including quarantine rules, and may enforce those rules in the municipality and in any area within 10 miles of the municipality (**Acts 1989, 71st Leg., ch. 678, §1, eff. Sept. 1, 1989. The Texas Statutes § 122.005**).

Louisiana-----LA does not refer to a law governing body of a Type A General-Law Municipality within the states isolation and quarantine laws.

Texas-----Home-Rule Municipality-----A home-rule municipality may: (1) adopt rules to protect the health of persons in the municipality, including quarantine rules

to protect the residents against communicable disease; and (2) provide for the establishment of quarantine stations, emergency hospitals, and other hospitals (**Acts 1989, 71st Leg., ch. 678, §1, eff. Sept. 1, 1989. The Texas Statutes § 122.006**).

Louisiana-----State Health Officer-----The state health officer and the office of public health of the Department of Health and Hospitals shall have exclusive jurisdiction, control, and authority to isolate or quarantine for the care and control of communicable disease within the state; to take such action as is necessary to accomplish the subsidence and suppression of diseases of all kinds in order to prevent their spread; to enforce a sanitary code for the entire state containing provisions for the improvement and amelioration of the hygienic and sanitary conditions of the state. If any parish or municipality or any portion thereof becomes infected with any disease to such an extent as to threaten the spread of the disease to the other portions of the state, the state health officer shall issue his proclamation declaring the facts and ordering the infected parish or municipality or the infected portion thereof quarantined. Further, the state health officer shall order all local health officers to quarantine against the locality; shall establish and promulgate the rules, regulations, terms and conditions on which intercourse with the infected locality will be permitted; and shall issue to the other local sanitary authorities instructions as to the measures adopted in quarantining against persons, goods, or other property coming from the infected locality. These rules, regulations, terms and conditions shall be observed and obeyed by all health authorities. Any other of the noninfected portions of the state may, upon approval of the state health officer, add to the regulations, rules, terms and conditions already imposed by the state health officer. The state health officer may prohibit the introduction into any infected portion of the state persons

acclimated, unacclimated or said to be immune, when, in his judgment, the introduction of those persons would increase the prevalence of the disease. The state health officer shall render to the local health officers all the assistance which the conditions of his finances permit (**Acts 1976, No. 346, §1. Amended by Acts 1978, No. 786, §5, eff. July 17, 1978; Acts 1979, No. 449, §4, eff. Jan.1, 1980; Acts 1989, No. 713, § 1 Acts 1990, No. 574, §1, Acts 1993, No. 180, § 1, eff. May 31, 1993; Acts 1999, No. 993, §1 1, eff. July 9, 1999. Acts 1976, No. 346, § 1. LRS 40:5, LRS 40:7).**

Texas-----A health authority is a physician appointed under the provisions of this chapter to administer state and local laws relating to public health within the appointing body's jurisdiction. The duties of a health authority include:

- (1) Establishing, maintaining, and enforcing quarantine in the health authority's jurisdiction;
- (2) Aiding the board in relation to local quarantine, inspection, disease prevention and suppression, birth and death statistics, and general sanitation in the health authority's jurisdiction;
- (3) Reporting the presence of contagious, infectious, and dangerous epidemic diseases in the health authority's jurisdiction to the board in the manner and at the times prescribed by the board;
- (4) Reporting to the board on any subject on which it is proper for the board to direct that a report be made; and
- (5) Aiding the board in the enforcement of the following in health authority's jurisdiction;
 - a. Proper rules, requirements, and ordinances;

- b. Sanitation laws;
- c. Quarantine rules; and
- d. Vital statistics collections.

A health authority may declare a house, building, apartment, room, or place within the health authority's jurisdiction to be a place of quarantine whenever a case of communicable disease occurs therein, and, in the health authority's opinion, it is necessary to do so in order to protect the public health. No person shall leave or enter the place during the period of quarantine except with specific permission of the health authority (Acts 1989, 71st Leg., chp.678 § 1, eff. Sept. 1, 1989. The Texas Statutes § 121.024. The provisions of this §97.9 adopted to be effective March 16, 1994, 19 TexREG 1453. Texas Administrative Code RULE §97.9.

4. Did each state adopt the approach for what they did for isolation and quarantine with regard to Ebola?

While each state's isolation and quarantine processes were more restrictive during the Ebola outbreak neither state has adopted the approach for regular isolation and quarantine.

5. How do current federal and state emergency preparedness public health laws for Louisiana and Texas affect the public health systems ability to allow standardized response to isolation and quarantine in Ebola response?

CHAPTER VI

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Research Conclusions

There was not a significant relationship between federal and state emergency preparedness public health laws that would allow the public health system to standardize isolation and quarantine in Ebola response. However, there were significant correlations to federal and state health laws and the degree in which each state addressed asymptomatic individuals vs. the normal sanitary code and whether it was more or less restrictive than the CDC's guidelines. The comparison of the state's sanitary code vs. federal law demonstrated the control of diseases was relatively the same. Finally, there was evidence that each state did not adopt the approach for regular state isolation and quarantine line vs. what was done for isolation and quarantine with regard to Ebola.

- *How do current federal and state emergency preparedness public health laws for Louisiana and Texas affect the public health system's ability to allow standardized response to isolation and quarantine in Ebola?*
 - Based on the analysis, there was evidence suggesting that Louisiana and Texas laws greatly affect the public health system's ability to allow standardized response.
 - The affects were as follows: differing quarantine policies; policies that are between 35 and 100 years old; policies that focus on a small number of

specific diseases; states that had specific statutes for isolation and quarantine of people suspected of tuberculosis, but no state had statutes for any other specific diseases; states that maintained and developed stricter policies than CDC's guidance related to personal protective equipment in Ebola response; transportation of patients infected with Ebola (interstate transport handled by the state with CDC support and guidance and international transport handled by U.S. Department of State).

- *What did each state do for Ebola relative to the law concerning asymptomatic individuals vs. the normal sanitary code? Was it more or less restrictive /non-restrictive than the CDC's guidelines?*
 - Based on the analysis, there was evidence suggesting that Louisiana and Texas had more restrictive laws than the CDC's guidelines concerning asymptomatic individuals and the normal sanitary code.
 - Research shows that the CDC's guidelines had categories of high-risk, some risk, low risk, and no identifiable risk. Louisiana and Texas included those levels in their guidelines. Both states had similar guidelines with a slight level of difference. However, both remained more restrictive than the CDC's guidelines. Neither of the emergency preparedness participants mentioned this in answering the questionnaire. Their answers did not include any explanation of the level of restrictiveness of the isolation and quarantine laws of either state. Based on analysis, it is determined that this is the case because of a lack of knowledge and direct questioning.

- *What is the state's sanitary code/law vs. federal law (CDC guidelines)?*
 - Based on the analysis findings, there was evidence suggesting a minimal relationship between the state's sanitary code/law vs. federal law. In both states laws were based on the control of diseases particularly Class A diseases that are of a major public health concern because of the severity of the disease or condition and the potential for epidemic spread. These Class A diseases are inclusive of but not limited to viral hemorrhagic fever (Ebola).
 - Based on the analysis findings, there was evidence that the federal government derives its authority for isolation and quarantine from the Commerce Clause of the U. S. Constitution. Federal law vs. CDC guidelines are relatively the same. The U.S. Secretary of Health and Human Services is authorized to take measures to prevent the entry and spread of communicable diseases from foreign countries into the United States and between states.
- *Comparison of State vs. State for Ebola.*
 - Based on the data findings, there was no real evidence suggesting major differences between the powers given to each state health officer or health authority with regard to making decisions on isolation and quarantine laws based on the Ebola epidemic.
 - The qualitative research was clear that there is a need for isolation and quarantine update and improvement in Louisiana. The data suggests that those who serve as emergency preparedness directors have a greater

common knowledge in isolation and quarantine law, however the research did not quantify the differences due to sample size limitations.

- *Did each state adopt the approach for what they did for isolation and quarantine with regard to Ebola?*
 - Based on the data findings, there was evidence suggesting that Louisiana and Texas did not adopt the approach they used for isolation and quarantine with regard to Ebola.
 - Current isolation and quarantine laws for both Louisiana and Texas still remain in place. Considering the changes in overall climate change with regard to Category A agents, an opportunity for change and innovation in approach to decision making of elected officials and policy maker is suggested.

Significance of the Study

This study has contributed to the body of knowledge by: exploring the legal climate related to isolation and quarantine in emergency preparedness in LA and TX; examining the direct effect of the legal climate across regional states during an all-hazards event; and determining whether any effects of legal issues require modification or implementation of new state laws related to emergency response. The study has provided information on the issues of isolation and quarantine in Louisiana and Texas, particularly on keeping pace with scientific developments; complying with modern constitutional and other legal requirements; and exercising public health powers, due process procedures for exercising public health powers, and privacy protection.

Furthermore, this study has enhanced the knowledge of public health officials as well as the public by helping define the objectives of public health to set policy agenda; authorize and limit public health actions; serve as a tool of prevention, and facilitate planning and coordination of governmental and nongovernmental health activities. For future researchers, this study should provide baseline information and act as a guide to the various rationales supporting law reform. This research is relevant and timely because of the repeated interest noted in scholarly and practitioner journals and articles.

Recommendations For Further Research Or Intervention

The first recommendation for future research includes replicating this study, using a longitudinal approach. The laws of immigration reform will also play a crucial factor in how we look at isolation and quarantine. For the longitudinal study, development of a model for cross-jurisdictional Isolation and Quarantine model for comparison among states would be key. A second recommendation is to strengthen I would also work on strengthening Isolation and Quarantine Laws with regard to Category A agents, particularly Viral Hemorrhagic Fevers (VHFs). A third recommendation is to include research on Isolation and Quarantine Benchmarks and Bench books. Finally, further research would include Isolation and Quarantine Laws with regard to Immigration Reform.

While there are a few outliers with regard to quarantine law, most states are revising their public health laws to align with proposed public health powers, making their quarantine laws similar, with varying degrees of detail. A few states will need to update their current laws to expand the scope of quarantine from tuberculosis and other named diseases to include other communicable diseases and emerging threats. While

authority to impose quarantine resides on federal, state, and local levels, the "who, what, when, where, and why" differs and requires review of applicable state and, in some cases, local laws and ordinances. Federal intervention focuses on prevention and preparedness, although federal officials have quarantine authority in certain specified situations. All involved have learned the importance of coordination and common procedures to help ensure an efficient response to public health emergencies.

One common characteristic of many state quarantine laws is their "overall antiquity," with many statutes being between 40 and 100 years old. The more antiquated laws "often do not reflect contemporary scientific understandings of disease, [or] current treatments of choice." In the past, state laws were often enacted with a focus on a particular disease, such as tuberculosis or typhoid fever, leading to inconsistent approaches in addressing other diseases. Until recently, despite the inconsistencies and perceived problems with such laws, state legislatures have not been forced to reevaluate their quarantine and isolation laws due to a decline in infectious diseases and advances in public health and medicine. However, in light of recent threats and security concerns, many states have begun to reconsider their emergency response systems, including the state's authority to quarantine. A review of quarantine authority was listed as a priority for state governments in the President's 2002 National Strategy for Homeland Security. Federal authority over interstate and foreign travel is clearly delineated under constitutional and statutory provisions. Less clear, however, is whether the state police powers may be used to restrict interstate travel to prevent the spread of disease. In a public health emergency, federal, state, and local authorities may overlap. For example, both federal and state agencies may have quarantine authority over an aircraft arriving in

a large city from a foreign country. Thus, coordination between the various levels of government would be essential during a widespread public health emergency

Limitations

Legal challenges to quarantine authority.

Public health measures in emergency situations, including quarantine, involve balancing the rights of individuals with the state's police power to protect the needs of the public health, safety, and general welfare. Historically, this balance can be seen in public health crises over the past century or so. The U.S. Constitution and federal civil rights laws provide for individual due process and equal protection rights as well as a right to privacy, but these rights are balanced against the needs of the community.

However, classic public health measures such as quarantine, isolation, and contact tracing are, nevertheless, available in appropriate situations. As new or resurgent diseases have become less treatable, some of these classic public health measures have been increasingly used. Therefore, the issue of how to balance these various interests in a modern culture that is sensitive to issues of individual rights has become critical.

Some courts have recognized an individual's right to challenge his or her quarantine or isolation by petitioning for a writ of habeas corpus. Although the primary function of a writ of habeas corpus is to test the legality of the detention, petitioners often seek a declaration that the statute under which they were quarantined is unconstitutional.

Due process challenges.

In general, courts appear to have declined to interfere with a state's exercise of police powers in public health matters "except where the regulations adopted for the protection of the public health are arbitrary, oppressive and unreasonable." For example,

in *Miller v. Campbell City*, an order to evacuate an area was issued because of leaking methane and hydrogen gases. After some residents from a subdivision in the area became ill, the county commissioners declared the subdivision uninhabitable. The plaintiff was arrested when he crossed the roadblock enforcing the quarantine in an attempt to return home. The Tenth Circuit Court of Appeals upheld a finding that the evacuation order was substantially related to the public health and safety, and found no evidence that the quarantine action was taken in bad faith or maliciously. The court noted that the county needed to act quickly because of the potential danger, and did so “with appropriate concern for the situation and the interests of all involved.” The court therefore found that the plaintiffs were not denied substantive due process. The court also held that because the plaintiffs were given the opportunity to present their objections orally to the local authorities, and could have entered written materials as well, the protections of procedural due process were satisfied.

Similarly, a federal district court in *United States v. Shinnick* (*United States v. Shinnick*, 2016), upheld the PHS’s medical isolation of an arriving passenger because she had been in Stockholm, Sweden, a city declared by the World Health Organization to be a smallpox-infected area, and she could not show proof of vaccination. Likewise, a state court in *People ex rel. Barmore v. Robertson* (Simkin, 2002) refused to grant a habeas corpus petition for a woman who ran a boarding house where a boarder had typhoid fever had boarded. The woman was not herself infected with the disease, but she was a carrier and had been quarantined in her home. She argued that her quarantine was unwarranted because she was not “actually sick,” though the court noted that “it is not necessary that one be actually sick, as that term is usually applied, in order that the health authorities

have the right to restrain his liberties by quarantine regulations.” In justifying quarantine under these circumstances, the court explained that because disease germs are carried by human beings, and as the purpose of an effective quarantine is to prevent the spread of the disease to those who are not infected, anyone who carries the germs must be quarantined. The court found that in the case of a person infected with typhoid fever, anyone who had come into contact with that person must be quarantined to prevent the spread of the disease. More recently, a federal district court in New York dismissed a claim alleging violation of substantive and procedural due process by a plaintiff who was diagnosed with tuberculosis and confined to a hospital for a few days against his will. The court cited to Justice Burger’s concurrence in *O’Connor v. Donaldson*, (Behnke, 1999), which noted that, pursuant to its police powers, a “state may confine individuals solely to protect society from the dangers of significant antisocial acts or communicable disease.” However, at least one state court has ruled that when a state confines an individual in order to prevent the spread of disease, the state must provide the individual with procedural due process protections such as, *inter alia*, a notice explaining the grounds for confinement, the right to counsel, and the right to engage in cross-examination.

Additional potential challenges.

Additional legal issues might be raised if quarantine, isolation, and other public health measures were used to deal with a widespread domestic public health emergency. If government agencies requisition private facilities for quarantine purposes, such as in the case of overburdened medical facilities, the legal questions regarding eminent domain power may arise. A new development in the law relating to quarantine is the possible use

of self-imposed or home quarantines. States may need to consider whether their ability to impose quarantine also includes the authorities necessary to support a population asked to voluntarily stay at home for a period of time. Such authority may include the ability to offer legal immunity to businesses asked to provide facilities for quarantine.

Other Limitations.

Some of the other limitations of this study include lack of previous research/information, antiquated/outdated laws, differing laws among states, and the small sample size.

REFERENCES

- Auf der Heide, E. (1989). *Disaster Response: Principles of Preparedness and Coordination*. St. Louis, MO: Mosby.
- Auf der Heide, E. (2005). The importance of evidence-based disaster planning. *Ann Emerg Med.* 47(1), 34–49.
- Altevogt, J. (2008). Research priorities in emergency preparedness and response for public health system. *Institute of Medicine*.
- Appropriations Act of 2007 (Title VI) and the Post-Katrina Emergency Management Reform Act. Retrieved from <http://www.loc.gov/>.
- Asch S.M., Stoto M., Mendes M, Valdez, R., Gallagher, M., Halverson, P. & Lurie, N. (2005). A review of instruments assessing public health preparedness. *Public Health Rep.* 120 (5), 532–542.
- Banks, W.C. (2011). *The legal landscape for emergency management in the United States*. Syracuse: New American Foundation.
- Baskin, J. (1975). Emergency Response Framework. *International Library Review*, 7(2), 217-218. doi:10.1016/0020-7837(75)90051-5
- Behnke, S. (1999). O'Connor v. Donaldson: Retelling a Classic and Finding Some Revisionist History. *J Am Acad Psychiatry Law*, Vol. 27, No. 1, 1999.
- Bernstein, J.A. (2013). “Beyond Public Health Emergency Legal Preparedness:

- Rethinking Best Practices” *Journal of Law, Medicine & Ethics*, 41, 13-16.
- Blendon, R.J., DesRoches, C.M., Cetron, M.S., Benson, J.M., Meinhardt, T. & Pollard, W. (2002). Attitudes toward the use of quarantine in a public health emergency in four countries. *Professional School Counseling*, (6)1.
- Borio, L., Inglesby, T., Peters, C.J., Schmaijohn, A.L., Hughes, J.M., Jahrling, P.B., Ksiazek, T., Johnson, K.M., Meyerhoff, A., Toole, T., Ascher, M.S., Bartlett, J., Breman, J.G., Eitzen, E.M., Hamburg, M., Hauer, J., Henderson, D.A., Johnson, R.T., Kwik, G., Layton, M., Lillibridge, S., Nabel, G.J., Osterholm, M.T., Peri, T.M., Russell, P., & Tonat, K. (2002). Hemorrhagic fever viruses as biological weapon: Medical and public health management. *JAMA*, (18), 2391-2405.
- Bosman, A. (2015, January 10). Field Epidemiology Manual. Retrieved June 11, 2015, from <https://wiki.ecdc.europa.eu/fem/w/wiki/public-health-law.aspx>.
- Bullard, C. H., Hogan, R. D., Penn, M.S., Ferris, J., Cleland, J., Stier, D., Davis, R.M., Allan, S., Van de Putte, L., Caine, V., Besser, R. E., & Gravelly, S. (2008). *Journal of Law, Medicine & Ethics*, (36), 57-63.
- Centers for Disease Control (2015). Ebola Virus Disease: About Ebola Virus Disease. Retrieved from <http://www.cdc.gov/vhf/ebola/about.html>
- Centers for Disease Control (2015). Quarantine and Isolation: History of Quarantine. Retrieved from <http://www.cdc.gov/quarantine/historyquarantine.html>
- Centers for Disease Control and Prevention. (n.d.). *CDC Foundational Course for Front-Line Practitioners*. Lecture. Retrieved August 7, 2015.
- Centers for Disease Control and Prevention. (2014). Examination of Legal Language Authorizing Responses to Incidents Involving Contamination with Radioactive

- Material. *Public Health Preparedness*, 2-38. Retrieved June 1, 2014, from <http://www.cdc.gov/php/docs/php-radioactive.pdf>.
- Centers for Disease Control and Prevention. (2015, January 9). Influenza Antiviral Medications: Summary for Clinicians. Retrieved February 11, 2015, from <http://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>.
- Childress, J. F., & Bernheim, R. G. (2003). Beyond the Liberal and Communitarian Impasse: A Framework and Vision for Public Health [Review of book *Public Health Statutes*]. *Florida Law Review*, 55, 5th ser., 1191-1218.
- Coleman, C., & Reis, A. (2007). *Ethical considerations in developing a public health response to pandemic influenza* (Publication). Geneva: World Health Organization.
- Due process of Law. (n.d.)(2008). *West's Encyclopedia of American Law*, (2nded.). Retrieved from <http://legaldictionary.thefreedictionary.com/Due+Process+of+Law>
- Fidler, D. P., Gostin, L. O., & Markel, H. (2007). Through the Quarantine Looking Glass: Drug-Resistant Tuberculosis and Public Health Governance, Law, and Ethics. *The Journal of Law, Medicine & Ethics*, 35(4), 616-628. doi:10.1111/j.1748-720x.2007.00185.x
- Fraser, M. (2007). After 5 years of public health preparedness, are we ready yet? *Public Health ManagPract*. 13(1), 3–6.
- Gostin, L.O., Bayer, R.B., & Fairchild, A.L. (2003). Ethical and legal challenges posed by severe acute respiratory syndrome. *JAMA*, (24), 3229-3237.

- Gostin, L. O. (2005, March 22). Law and the Public's Health: The Legal System Provides Many Tools to Promote Public Health, but It Includes Necessary Limits to Protect Individual Rights. *Issues in Science and Technology*. Retrieved October 26, 2015, from <http://issues.org/21-3/gostin>.
- Hodge, J. G., Orenstein, D. G., & Weidenaar, K. (2014, May). Expanding the Roles of Emergency Medical Services Providers: A Legal Analysis. Retrieved June 12, 2014, from <http://www.astho.org/Preparedness/ASTHO-EMS-and-Law-Report/>.
- Hogan, R., Bullard, C. H., Stier, D., Penn, M.S., Wall, T., Cleland, J., Burch, J.H., Monroe, J., Ragland, R. E., Baker, T., & Casciotti, J. (2008). *Journal of Law, Medicine & Ethics*, (36), 36-52.
- Hunter, J.C., Yang, J.E., Petrie, M. & Aragon, T.J. (2012). Integrating a framework for conducting public health systems research into statewide operations-based exercises to improve emergency preparedness. Retrieved from <http://www.biomedcentral.com>.
- Institute of Medicine. (2008). *Research Priorities in emergency preparedness and response for public health systems. A letter report*. Washington, DC: The National Academies Press.
- Institute of Medicine. (2011). *For the Public's Health: Revitalizing Law and Policy to Meet New Challenges*. Washington, D.C.: National Academies Press.
- Jacobson, P.D., Wasserman, J., Botosaneanu, A., & Silverstein, A. (2012). Public Health Governance The Role of Law in Public Health Preparedness: Opportunities and Challenges. *Journal of Health Politics, Policy and Law*, 37, (2).
- Kamoie, B., Pestronk, R. M., Baldrige, P., Fidler, D., Devlin, L, Mensah, G.A., &

- Doney, M. *Journal of Law, Medicine & Ethics*, 1(36), 23-27.
- Keim, M. &Giannone P. (2006). Disaster preparedness. In: Ciottone G, ed. *Disaster Medicine*. Philadelphia, PA: Mosby, 164–173.
- Kouzoukas, D. L. (2008). “Public Health Legal Preparedness: Legal Practitioner Perspectives”. *Journal of Law, Medicine & Ethics*, 1, (36), 18-22.
- Lindell, M.K., & Perry R.W. (1992).*Behavioral Foundations of Community Emergency Planning*. Washington, DC: Hemisphere.
- Lurie N., & Wasserman J. (2007). Assessing public health emergency preparedness: concepts, tools, and challenges. *Annu Rev Public Health*, 28, 1–18.
- Lurie N., & Wasserman J. (2006). Public health emergency preparedness: Evolution or revolution? *Health Affairs*, 25(4), 935–945.
- Lushniak, B. D. (2015). Surgeon General's Perspectives.*Public Health Reports*, 130, 118-120. Retrieved June, 2015.
- Model Intrastate Mutual Aid Legislation. (2004). Retrieved from <http://www.emacweb.org/?150>.
- Mubayi, A., Zaleta, C., Martcheva, M., & Castillo-Chávez, C. (2010).A cost-based comparison of quarantine strategies for new emerging diseases.*MBE Mathematical Biosciences and Engineering*, 7(3), 687-717.
doi:10.3934/mbe.2010.7.687
- National Preparedness Guidelines, Department of Homeland Security. (2015)
Retrieved from http://www.dhs.gov/files/publications/gc_1189788256647.shtm.
- Neil, H. P. (2014) “Legally: What is quality care?” *MEDSURG Nursing*, 23(1), 14-15.
- Nelson, C., Lurie, N., Wasserman, J., and Zakowski, S. (1997). Conceptualizing

- and Defining Public Health Emergency Preparedness. *Am J Public Health*, 97(1), S9-S11
- O'Brien, D., Rees, C.M., Abbott, E., Belmont, E., Eiden, A., Libbey, P., Chavez, G., & desVignes-Kendrick, M. (2008). *Journal of Law, Medicine & Ethics*. (36), 64-67.
- Pandemic and All-Hazards Preparedness Act (S.3678). (2006). Retrieved from www.phe.gov/about/aspr/Pages/default.aspx.
- Patel, M. S., Phillips, C. B., Pearce, C., Kljakovic, M., Dugdale, P., & Glasgow, N. (2008). General Practice and Pandemic Influenza: A Framework for Planning and Comparison of Plans in Five Countries. *PLoS ONE*, 3(5). doi:10.1371/journal.pone.0002269
- Pestronk, R. M., Kamoie, B., Fidler, D., Matthews, G., Benjamin, G. C., Bryan, R. T., & Redd, S. (2008). Improving Laws and Legal Authorities for Public Health Emergency Legal Preparedness. *Journal of Law, Medicine & Ethics*, 3647-51.
- Public Laws. (1994). Retrieved from <http://legisworks.org/sal/58/stats/STATUE-58-Pg682a.pdf>
- Reaves, E.J., Mabande, L.G., Thoroughman, D.A., Arwady, M.A., & Montgomery, J.M. (2014). Control of Ebola Virus Disease – Firestone District, Liberia. *Morbidity and Mortality Weekly Report*, 63(42), 959.
- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy Science*, 4(2), 155-169. doi:10.1007/bf01405730
- Rutkow, L., Vernick, J.S., & Wissow, L.S., & Hodge, J.). (2011). Prescribing authority during emergencies: Challenges for mental health care providers. *Journal of*

Legal Medicine, (32), 249-260.

Robert T. Stafford Disaster Relief and Emergency Act.42 (2007). Retrieved from

<http://www.fema.gov>.

T. Stafford Disaster Relief and Emergency Assistance Act, 42. (2013). 5121

-5207. Retrieved from <http://www.fema.gov>.

Simpkin, David, Liberty Writ Large: Habeas Corpus (2002), Retrieved March 1, 2016

from <http://www.lawlink.co.nz/resources/habeas.pdf>.

Smith, B., &Wandel, J. (2006).Adaptation, adaptive capacity and vulnerability.*Global*

Environment Change – Human Policy Dimensions, 16(3), 282-292.

Social-Distance. (n.d). (2015). Retrieved from

<http://dictionary.reference.com/browse/social-distance>

Strategies for Disease Containment. (2007). In *Ethical and Legal Considerations in*

Mitigating Pandemic Disease. Retrieved June 11, 2015, from

<http://www.ncbi.nlm.nih.gov/books/NBK54163/doi:doi:10.1371/journal.pone.0002269>.

Texas State Facts. Retrieved March 1, 2016 from

<http://www.50states.com/facts/texas.htm>

The Emergency Management Assistance Compact (EMAC). (1005). Nationally adopted

interstate mutual aid agreement. Retrieved from www.emacweb.org.

Tognotti, E. (2013). Lessons from the History of Quarantine, from Plague to Influenza A.

Emerging Infectious Diseases, 19(2), 254-259. doi:10.3201/eid1902.120312

United States v. Schinnick. Retrieved March 1, 2016 from

<http://law.justia.com/cases/federal/district-courts/FSupp/219/789/1438260/>

U.S. Dept. of Labor Bureau of Labor Statistics Consumer Price Index Inflation Calculator (2015). Adjusted for inflation. To improve the comparability of the budget data between FY 2005 and FY 2012, TFAH adjusted the FY 2005 numbers for inflation. Retrieved from http://www.bls.gov/data/inflation_calculator.htm.

U.S. Department of Homeland Security. (2003). National preparedness Guidelines. Retrieved from www.dhs.gov/national-preparedness-guidelines.

U.S. Department of Homeland Security. (2006). Robert T. Stafford Disaster Relief and Emergency Assistance Act. Washington, DC: Department of Homeland Security.

Waterman, S.H., Escobedo, M., Wilson, T., Edelson, P.J., Bethel, J.W., & Fishbein, D.B. (2009). A new paradigm for quarantine and public health activities at land borders: Opportunities and Challenges. *Public Health Rep*, 124(2), 203-211.

Welborn, Angie. (2005). *Federal and State Isolation Quarantine Authority*. CRS Report for Congress.

APPENDICES

APPENDIX A

EBOLA SCREENING AND MONITORING POLICIES FOR ASYMPTOMATIC
INDIVIDUALS

Table 3.

Ebola Screening and Monitoring Policies for Asymptomatic Individuals

STATE	TIERS OF EXPOSURE (All language below is quoted unless otherwise indicated)	ACTION FOR TIER (All language below is quoted unless otherwise indicated)	DIFFERENCE FROM CDC GUIDANCE: MORE RESTRICTIVE/ EQUIVALENT/ LESS RESTRICTIVE	SOURCE: ORDER/ PRESS RELEASE/ PLAN/ POLICY	LINKS
CDC	<p>High risk includes any of the following:</p> <ul style="list-style-type: none"> • Percutaneous (e.g., needle stick) or mucous membrane exposure to blood or body fluids of a person with Ebola while the person was symptomatic • Exposure to the blood or body fluids (including but not limited to feces, saliva, sweat, urine, vomit, and semen) of a person with Ebola while the person was symptomatic without appropriate personal protective equipment (PPE) • Processing blood or body fluids of a person with Ebola while the person was symptomatic without appropriate PPE or standard biosafety precautions • Direct contact with a dead body without appropriate PPE in a country with widespread transmission or cases in urban settings with uncertain control measures 	<ul style="list-style-type: none"> • Direct active monitoring • Public health authority will ensure, through orders as necessary, the following minimum restrictions: <ul style="list-style-type: none"> ○ Controlled movement: exclusion from all long-distance and local public conveyances (aircraft, ship, train, bus and subway) ○ Exclusion from public places (e.g., shopping centers, movie theaters), and congregate gatherings ○ Exclusion from workplaces for the duration of the public health order, unless approved by the state or local health department (telework is permitted) • Non-congregate public activities while maintaining a 3-foot distance from others may be permitted (e.g., jogging in a park) • Federal public health travel restrictions (Do Not Board) will be implemented to enforce controlled movement • If travel is allowed, individuals are subject to controlled movement 		<p>Policy Updated 5-13-15</p>	<p>http://www.cdc.gov/vhf/ebola/pdf/monitoring-and-movement.pdf (last accessed 8-31-15)</p>

STATE	TIERS OF EXPOSURE (All language below is quoted unless otherwise indicated)	ACTION FOR TIER (All language below is quoted unless otherwise indicated)	DIFFERENCE FROM CDC GUIDANCE: MORE RESTRICTIVE/ EQUIVALENT/ LESS RESTRICTIVE	SOURCE: ORDER/ PRESS RELEASE/ PLAN/ POLICY	LINKS
CDC	<ul style="list-style-type: none"> • Having lived in the immediate household and provided direct care to a person with Ebola while the person was symptomatic 	<ul style="list-style-type: none"> ○ Travel by noncommercial conveyances only ○ Coordinated with public health authorities at both origin and destination ○ Uninterrupted direct active monitoring 		Policy Updated 5-13-15	http://www.cdc.gov/vhf/ebola/pdf/m-monitoring- and-movement.p df (last accessed 8-31-15)
LA	<p>7.4.6-Louisiana approach mandated by the DHH Administration</p> <p>The approach used in Louisiana is to use regardless of the risk category... [see next column]</p>	<ul style="list-style-type: none"> •Active direct monitoring and •Voluntary quarantine 	More Restrictive	Ebola Hemorrhagic Fever Ebola Virus Disease (EVD) 12-1-14	http://new.dhh.lo uisiana.gov/assets /oph/Center-PHCH/Center- CH/infectious- epi/EpiManual/E bolaManual.pdf (last accessed 8-31-15)

Cont'd

STATE	TIERS OF EXPOSURE (All language below is quoted unless otherwise indicated)	ACTION FOR TIER (All language below is quoted unless otherwise indicated)	DIFFERENCE FROM CDC GUIDANCE: MORE RESTRICTIVE/ EQUIVALENT/ LESS RESTRICTIVE	SOURCE: ORDER/ PRESS RELEASE/ PLAN/ POLICY	LINKS
TX	High risk exposures: Percutaneous (e.g., needle stick) or mucous membrane exposure to blood or body fluids of a person with Ebola while the person was symptomatic; exposure to the blood or body fluids (including but not limited to feces, saliva, sweat, urine, vomit, and semen) of a person with Ebola while the person was symptomatic without appropriate personal protective equipment (PPE); processing blood or body fluids of a person with Ebola while the person was symptomatic without appropriate PPE or standard biosafety precautions; direct contact with a dead body without appropriate PPE in a country with widespread Ebola virus transmission; having lived in the immediate household and provided direct care to a person with Ebola while the person was symptomatic.	<ul style="list-style-type: none"> • Public health meets passenger at the airport, and retakes temperature • Support Do Not Board (DNB) if issued by CDC • Notification of LHD followed by in-home visit within 12 hours of LHD notification • Control Order issued for quarantine (No public transportation, no large congregate setting activities, and no leaving home) • Twice daily visualized temperature checks at least 6 hours apart for 21 days after departure from country <ul style="list-style-type: none"> o At least one must be in-person, both in-person preferred • Report daily monitoring outcomes to DSHS Emerging and Acute Infectious Disease Branch 7 days/week • Proceed to “symptomatic” if indicated 	More Restrictive	Guidance: Monitoring and Movement of People with Potential Exposure to Ebola Virus Disease 11-7-14	http://www.dshs.state.tx.us/WorkArea/DownloadAsset.aspx?id=8589993293 (last accessed 8-31-15)

Cont'd

STATE	TIERS OF EXPOSURE (All language below is quoted unless otherwise indicated)	ACTION FOR TIER (All language below is quoted unless otherwise indicated)	DIFFERENCE FROM CDC GUIDANCE: MORE RESTRICTIVE/ EQUIVALENT/ LESS RESTRICTIVE	SOURCE: ORDER/ PRESS RELEASE/ PLAN/ POLICY	LINKS
TX	Some risk exposures: In countries with widespread Ebola virus transmission: direct contact while using appropriate PPE with a person with Ebola while the person was symptomatic; close contact in households, healthcare facilities, or community settings with a person with Ebola while the person was symptomatic. (Close contact is defined as being for a prolonged period of time while not wearing appropriate PPE within approximately 3 feet [1 meter] of a person with Ebola while the person was symptomatic).	<ul style="list-style-type: none"> • Public health meets passenger at the airport, and retakes temperature, and interviews for risk factors • If interview demonstrates need to reassess risk, consult with DSHS Emerging and Acute Infectious Disease Branch • If elevation of risk is agreed upon, follow instructions of the higher risk category • Support Do Not Board (DNB) if issued by CDC • Notification of LHD followed by in-home visit within 12 hours of LHD notification • Twice daily visualized temperature checks at least 6 hours apart for 21 days after departure from country <ul style="list-style-type: none"> ○ In person checks preferred • No public transportation or large congregate setting activities; failure to comply can result in Control Order <ul style="list-style-type: none"> ○ Healthcare workers are not allowed to care for any patients ○ Visitors allowed • Report daily monitoring outcomes to DSHS Emerging and Acute Infectious Disease Branch 7 days/week • Proceed to “symptomatic” if indicated 			

Cont'd

STATE	TIERS OF EXPOSURE (All language below is quoted unless otherwise indicated)	ACTION FOR TIER (All language below is quoted unless otherwise indicated)	DIFFERENCE FROM CDC GUIDANCE: MORE RESTRICTIVE/ EQUIVALENT/ LESS RESTRICTIVE	SOURCE: ORDER/ PRESS RELEASE/ PLAN/ POLICY	LINKS
TX	<p>Low (but not zero) risk exposures: Having been in a country with widespread Ebola virus transmission within the past 21 days and having had no known exposures; having brief direct contact (e.g., shaking hands), while not wearing appropriate PPE with a person with Ebola while the person was in the early stage of disease; brief proximity, such as being in the same room for a brief period of time, with a person with Ebola while the person was symptomatic; in countries without widespread virus Ebola transmission: direct contact while using appropriate PPE with a person with Ebola while the person was symptomatic; traveled on an aircraft with a person with Ebola while the person was symptomatic</p> <p>No identifiable risk exposures: Contact with an asymptomatic person who had contact with a person with Ebola; contact with a person with Ebola before the person developed symptoms; having been more than 21 days previously in a country with widespread Ebola virus transmission; having been in a country without widespread Ebola virus transmission; having been in a country without widespread Ebola virus transmission and not having any other exposures as defined above.</p>	<ul style="list-style-type: none"> • Notification of LHD followed by in-home visit and risk interview within 12 hours of LHD notification • If interview demonstrates need to reassess risk, consult with DSHS Emerging and Acute Infectious Disease Branch • If elevation of risk is agreed upon, follow instructions of the higher risk category • Twice daily temperature checks at least 6 hours apart for 21 days after departure from country • Report daily monitoring outcomes to DSHS Emerging and Acute Infectious Disease Branch each business day • Proceed to “symptomatic” if indicated <p>• No monitoring</p>			

APPENDIX B
LOUISIANA PROVISIONS

Table 4.

Louisiana Provisions

State	State Authority Structure	Provisions	Date Effective	Citation
LA	Parish Health Officer	No parish health officer may establish quarantines without the approval of the state health officer, previously obtained, and the cooperation of the parish legislative body. The state health officer has supervisory power over all local quarantines so established.	Acts 1976 No. 346, §1	LRS 40:15
LA	State Health Officer	<p>The state health officer and the office of public health of the Department of Health and Hospitals shall have exclusive jurisdiction, control, and authority to isolate or quarantine for the care and control of communicable disease within the state; to take such action as is necessary to accomplish the subsidence and suppression of diseases of all kinds in order to prevent their spread; to enforce a sanitary code for the entire state containing provisions for the improvement and amelioration of the hygienic and sanitary conditions of the state.</p> <p>If any parish or municipality or any portion thereof becomes infected with any disease to such an extent as to threaten the spread of the disease to the other portions of the state, the state health officer shall issue his proclamation declaring the facts and ordering the infected parish or municipality or the infected portion thereof quarantined. Further, the state health officer shall order all local health officers to quarantine against the locality; shall establish and promulgate the rules, regulations, terms and conditions on which intercourse with the infected locality will be permitted; and shall issue to the other local sanitary authorities instructions as to the measures adopted in quarantining against persons, goods, or other property coming from the infected locality.</p> <p>These rules, regulations, terms and conditions shall be observed and obeyed by all health authorities. Any other of the noninfected portions of the state may, upon approval of the state health officer, add to the regulations, rules, terms and conditions already imposed by the state health officer. The state health officer may prohibit the introduction into any infected portion of the state persons acclimated, unacclimated or said to be immune, when, in his judgment, the introduction of those persons would increase the prevalence of the disease. The state health officer shall render to the local health officers all the assistance which the conditions of his finances permit.</p>	<p>Acts 1976, No. 346, §1. Amended by Acts 1978, No. 786, §5, eff. July 17, 1978;</p> <p>Acts 1979, No. 449, § 4, eff. Jan. 1, 1980;</p> <p>Acts 1989, No. 713, § 1 Acts 1990, No. 574, §1, Acts 1993, No. 180, § 1, eff. May 31, 1993;</p> <p>Acts 1999, No. 993, §1 1, eff. July 9, 1999.</p> <p>Acts 1976, No. 346, § 1.</p>	LRS 40:5, LRS 40:7

APPENDIX C
TEXAS PROVISIONS

Table 5.

Texas Provisions

State	State Authority Structure	Provisions	Date Effective	Citation
TX	Governing Body of a Type of A General-Law Municipality	The governing body of a Type A general-law municipality may take any action necessary or expedient to promote health or suppress disease, including actions to prevent the introduction of a communicable disease into the municipality, including quarantine rules, and may enforce those rules in the municipality and in any area within 10 miles of the municipality.	Acts 1989, 71 st Leg., ch. 678, § 1, eff. Sept. 1, 1989.	The Texas Statutes § 122.005
TX	Home Rule Municipality	A home-rule municipality may: <ol style="list-style-type: none"> (1) Adopt rules to protect the health of persons in the municipality, including quarantine rules to protect the residents against communicable disease; and (2) Provide for the establishment of quarantine stations, emergency hospitals, and other hospitals. 	Acts 1989, 71 st Leg., ch. 678, § 1, eff. Sept. 1, 1989.	The Texas Statutes § 122.006
TX	Health Authority	A health authority is a physician appointed under the provisions of this chapter to administer state and local laws relating to public health within the appointing body's jurisdiction. The duties of a health authority include: <ol style="list-style-type: none"> (1) Establishing, maintaining, and enforcing quarantine in the health authority's jurisdiction; (2) Aiding the board in relation to local quarantine, inspection, disease prevention and suppression, birth and death statistics, and general sanitation in the health authority's jurisdiction; (3) Reporting the presence of contagious, infectious, and dangerous epidemic diseases in the health authority's jurisdiction to the board in the manner and at the times prescribed by the board; (4) Reporting to the board on any subject on which it is proper for the board to direct that a report be made; and (5) Aiding the board in the enforcement of the following in the health authority's jurisdiction: <ol style="list-style-type: none"> a. Proper rules, requirements, and ordinances; b. Sanitation laws; c. Quarantine rules; and d. Vital statistics collections. <p>A health authority may declare a house, building, apartment, room, or place within the health authority's jurisdiction to be a place of quarantine whenever a case of communicable disease occurs therein, and, in the health authority's opinion, it is necessary to do so in order to protect the public health. No person shall leave or enter the place during the period of quarantine except with specific permission of the health authority.</p>	Acts 1989, 71 st Leg., ch. 678, § 1, eff. Sept. 1, 1989. The provisions of this §97.9 adopted to be effective Mach 16, 1994, 19 TexReg 1453.	The Texas Statutes § 121.024 Texas Administrative Code RULE §97.9

VITA

Glennis Petrina Gray is a Registered Nurse, and has worked in Nursing since 1994. In spring 1996, she obtained a Master of Science degree in nursing from Southern University and Agricultural and Mechanical College (Baton Rouge, Louisiana). She is also board certified in Ambulatory Care Nursing through the American Nurses Credentialing Center.

Ms. Gray continued her studies at The Interdenominational Theological Center (Atlanta, GA) in the spring of 2011, where she completed a certificate in theology. Moreover, she obtained a certificate in leadership from the Tulane School of Public Health and Tropical Medicine in spring 2012.

Glennis is currently a member of the following organizations: Sigma Theta Tau Honor Society; American Nursing Association; Baton Rouge District Nurses Association; Top Ladies of Distinction, Inc., Nonpareil Chapter-Baton Rouge; and Chi Eta Phi Sorority, Incorporated. She will complete her tenure as the Middlesouth Regional Director of Chi Eta Phi Sorority, Incorporated this year (2012-2016).

Her publications include but are not limited to, *Going Higher: Building a Generation of Leaders* (manuscript), *The Nurse in the Kitchen* and “Strategic National Stockpile Exercise-Louisiana” *LA Morbidity Report*, March-April, 2012, Volume 23, Number 2.

Currently, Ms. Gray is employed as a Statewide Nurse Consultant for the LA Department of Health and Hospitals. She is single with no children; but is guardian to her one awesome nephew!