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U.S. BIOLOGICAL QUARANTINE: A LOOK AT THE LEGAL FRAMEWORK

*Katherine T. Rooney**

I. INTRODUCTION

September 11, 2001 is a day of infamy that will forever be burned into the minds of most Americans. On that infamous day terrorists attacked the United States. The attack, carried out by Al Qaeda, was a wakeup call. Terrorists are bold and their purpose is to cause panic, terror, and death.

Terrorism is an increasing concern. September 11th just brought it to the forefront of everyone's mind. Since September 11th the incidents of terrorism have been increasing dramatically.¹ Because terrorism's purpose is to produce panic, terror, and death, terrorists are constantly looking at different ways to get those results. Bioterrorism is one of those different ways, and has become an increasing concern. Specifically, bioterrorism is terrorism that utilizes a pathogen, viral, or bacterial agent, in order to infect people and thereby create casualties and panic.²

Bioterrorism is not actually a new idea, but has existed for centuries. Historically, biological attacks, outbreaks and panics have happened frequently. For thousands of years, disease has changed the course of history by toppling rulers and affecting the outcome of wars. Combatants have been using disease as a weapon as far back as the fourteenth and fifteenth centuries before many diseases were really even understood. Armies would launch dead bodies, both human and animal, over castle walls with the goal of causing an epidemic and other problems that go along with one.³ In the eighteenth century French and Indian War, it is thought that Smallpox was deliberately utilized to reduce the population of hostile Indian tribes.⁴

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1. See, e.g., *Amerithrax or Anthrax Investigation*, THE FEDERAL BUREAU OF INVESTIGATION [hereinafter *Anthrax Investigation*], <http://www.fbi.gov/about-us/history/famous-cases/anthrax-amerithrax/amerithrax-investigation> (last visited Oct. 24, 2014) (noting that Anthrax letters were mailed and five Americans eventually fell ill). See generally Terror attacks, attempts since 9/11, CBS News, <http://www.cbsnews.com/pictures/terror-attacks-attempts-since-9-11/> (last visited Oct. 24, 2014) (Shoe Bomber, Bali Night Club Bombings, Istanbul Bombings, London Bus Bombings, Marriott Hotel Bombing, Ft. Hood Massacre, and Unabomber).

2. Emergency Preparedness and Response: Bioterrorism Overview, Ctrs. for Disease Control and Prevention, <http://emergency.cdc.gov/bioterrorism/overview.asp> (last updated Feb. 12, 2007).

3. Such as panic and economic harm.

4. MICHAEL B.A. OLDSTONE, *VIRUSES, PLAGUES, AND HISTORY* 33 (1998) (stating that Colonel Bouquet, instructed by a superior officer, deliberately attempted to reduce the population of Indian tribes, who were unsympathetic to the British Cause in North America. Bouquet replied, "I will try to inoculate the Indians

Furthermore, in the early 1990s a Japanese cult group, Aum Shinrikyo, tried and failed ten times to release anthrax, botulinum toxin, cyanide, VX, mustard gas, and Ebola; they succeeded, however, in releasing sarin nerve gas in Tokyo.⁵

More recently there was an actual biological attack in the United States in 2001. The anthrax attacks exposed how unprepared the United States was for such a biological attack.⁶ In response to this lack of preparedness, the United States as well as individual states have reexamined their quarantine statutes to ensure maximum coverage.

Currently, there is a natural outbreak of the Zaire strain of the Ebola virus. The outbreak began in Africa; the virus has never been seen outside of West Africa until very recently, but has since spread to other parts of the world. The spread of disease, particularly viruses, has become more of a concern with increasing technology.⁷ Cars, better roads, and airplanes all contribute to the mobility of a pathogen. Despite how counterintuitive it may seem, the availability of medical treatment can also contribute to the spread of disease. Since people know that there is treatment available in cities, they travel to the cities in order to get treatment, but along the way they expose and infect others. Historically, these people would have been isolated in their village, town, or home, which inevitably quarantined them. This is particularly true in Africa, which may be partially why previous Ebola epidemics were easily contained and ended. This time, however, over twenty-eight thousand people have been infected and over eleven thousand have died from Ebola.⁸ In September 2014, the first American Ebola case was diagnosed.⁹ Thomas Duncan flew from Liberia to Dallas where he became symptomatic of Ebola.¹⁰ After being treated in Texas, Duncan eventually died, but not before infecting two of his nurses with Ebola.¹¹ The two

with some blankets that may fall into their hands and take care not to get the disease myself.”). The use of Smallpox as a biological weapon during the French and Indian War has never been historically confirmed other than this letter stating the intent to do so.

5. CTR. FOR NONPROLIFERATION STUDIES, MONTEREY INSTITUTE OF INT’L STUDIES, CHRONOLOGY OF AUM SHINRIKYO’S CBW ACTIVITIES (2001), available at http://cns.miis.edu/reports/pdfs/aum_chm.pdf.

6. See *Anthrax Investigation*, supra note 1 (noting that the anthrax attacks were letters mailed to several congressional office buildings that also infected several postal workers and eventually ended up evacuating parts of Capitol Hill. The letters contained white powder that had the potential to get into the ventilation system and wreak havoc. Five people were killed and seventeen sickened. It is known as the worst biological attacks in U.S. History); see also *Anthrax*, Ctrs. for Disease Control, <http://www.cdc.gov/anthrax/> (last updated Sept. 1, 2015) (explaining that Anthrax is a bacteria that causes a serious infection. Treatment exists, but the infection must be spotted early for treatment to be effective).

7. Increasing technology includes cars, better roads, and airplanes and contributes to the rate at which a virus or other disease can spread.

8. *Ebola outbreak in West Africa – Case Counts*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/case-counts.html> (last updated Nov. 20, 2015).

9. *First US Ebola case Thomas Duncan ‘critical’*, BBC NEWS (Oct. 4, 2014), <http://www.bbc.com/news/world-us-canada-29493759> (identifying Thomas Duncan as the first case of Ebola to be diagnosed in the United States, though not the first American).

10. Liberia is one of the countries involved in the African outbreak of Ebola. Also involved are Guinea, Sierra Leone, and Nigeria. There is a separate outbreak in the Democratic Republic of Congo that is not related because it is a different strain of the Ebola virus. See *Ebola outbreak in the Democratic Republic of Congo is over*, NY DAILY NEWS (Nov. 25, 2014), <http://www.nydailynews.com/news/world/ebola-outbreak-democratic-republic-congo-article-1.2012547> (explaining that the outbreak in the Congo was over and that the outbreak was of a different viral strain than the one devastating Guinea, Sierra Leone, and Liberia).

11. *A Dallas Hospital Employee Has Tested Positive For Ebola*, BUSINESS INSIDER (Oct. 12, 2014), <http://www.businessinsider.com/dallas-hospital-employee-tests-positive-for-ebola-2014-10> (explaining that

nurses became the first two Americans ever infected with Ebola on American soil.¹²

Given the public's response to the current natural outbreak, there is a high likelihood that a biological attack is an attractive option to terrorists for causing panic and terror. There is also a high likelihood that the United States' response to such an attack would be difficult to predict.

The United States has a quarantine statute, 42 U.S.C. §268, but in order for the United States Government to respond effectively to a biological threat, several different statutes, both federal and state, must be looked at as well as requirements and limitations placed on the government by the United States Constitution.

There is an ongoing, immediate concern about the spread of Ebola in Africa partnered with a fear that United States aid workers returning from Africa may be infected with Ebola and therefore pose a danger to the public. Quarantine is a rare measure used to prevent the spread of contagious disease, but it must be consistent with relevant state and federal statutes. Additionally, the quarantine must comply with the Fourth Amendment protections against search and seizure because quarantine is in effect the seizure of a person. Specifically, this note will look at the case of Kaci Hickox, who was placed under quarantine and fought it in District Court in Maine. Hickox's initial quarantine in Newark complied with the New Jersey quarantine statute and with the Fourth Amendment. However, Hickox's mandated quarantine in Maine did not comply with Maine's statute although it likely complied with the Fourth Amendment protections.

Section I of this note will lay out Kaci Hickox's story and give background on Ebola, its treatments and dangers. Section II will look at the quarantine powers available in the United States; Section III will examine the Fourth Amendment search and seizure impact on quarantine powers. Section IV will apply the law to Kaci Hickox and her situation. Finally Section V will conclude the note by determining the compliance of Maine and New Jersey with their own quarantine statutes and with the Fourth Amendment requirements.

II. BACKGROUND

A. *Kaci Hickox*

Kaci Hickox is a nurse who, during the current Ebola outbreak, treated Ebola patients in Sierra Leone, part of the epicenter of the epidemic, for Doctors Without Borders. Upon her return to the United States via Newark International Airport on October 24, she became the first person caught in the newly announced quarantine in New Jersey.¹³ The quarantine was announced for Newark International Airport in

there is an ongoing investigation and argument over how the nurses became infected. Both nurses were closely involved with Duncan's care and Ebola while it does not spread easily, requiring direct contact with bodily fluids, takes very little fluid contact to infect in the later stages of the disease).

12. Previously, missionary doctors, nurses, and aid workers have been infected in West Africa while assisting with outbreaks. See *Unprecedented number of medical staff infected with Ebola*, WORLD HEALTH ORGANIZATION [WHO], <http://www.who.int/mediacentre/news/ebola/25-august-2014/en/> (last updated Aug. 25, 2014).

13. Matt Arco, *Ebola: Timeline of events, actions by Chris Christie* (Oct. 28, 2014, 3:26 PM), http://www.nj.com/politics/index.ssf/2014/10/ebola_timeline_of_events_actions_by_chris_christie.html.

Newark, New Jersey, and JFK International Airport in New York City. The mandatory quarantine dictated that anyone traveling into Newark or JFK international airports from countries “plagued” by Ebola must spend twenty-one days in isolation either at home or in a hospital if they had direct contact with patients from the epidemic.¹⁴

Hickox intended to catch a connecting flight from Newark to Maine where she lived. Hickox passed the enhanced medical check required of all passengers coming in from West Africa, but when the screeners were informed that she worked directly with the patients Hickox was pulled for additional questioning.¹⁵ Hickox maintained that she was never told what was going on or what would happen to her.¹⁶ Initially, Hickox’s temperature registered at 98 degrees, a normal temperature, but then three more hours of questioning passed and Hickox was given only a granola bar and some water.¹⁷ Four hours after arriving, a forehead scanner temperature registered a fever.¹⁸ Despite her fever, she was again left alone for an additional three hours, and then told she was being taken to a local hospital due to her fever.¹⁹ Once Hickox arrived at the hospital, however, she was not permitted inside.²⁰ Instead, she was confined to an outdoor isolation tent with no shower.²¹ An oral thermometer registered a normal temperature while the forehead scanner disagreed and registered 101 degrees.²² The infectious disease and emergency department doctor told Hickox that her face was flushed likely because she was upset, and that she did not have a fever.²³ She was tested for Ebola and it came back negative.²⁴

Despite having a normal temperature and being asymptomatic, Governor Christie described Hickox as “obviously ill” and she was declared under mandatory quarantine for twenty-one days with close monitoring by public health officials.²⁵ On October 26, Governor Christie announced that any healthcare providers returning from the West Africa epicenter would be subject to a mandatory quarantine order, but that it would be in their own homes.²⁶ Hickox was subsequently discharged from the hospital on October 27, four days after returning to the United States, because she had no symptoms for twenty-four hours and had tested negative for Ebola.²⁷

Hickox was transported to her home in Maine where she was ordered to stay

14. *Mandatory Quarantines for At-Risk Travelers from Ebola Hot Spots*, NY POST, Oct. 24, 2014, <http://nypost.com/2014/10/24/mandatory-quarantines-for-travelers-to-newark-jfk-from-ebola-afflicted-nations/>.

15. Arco, *supra* note 13.

16. Kaci Hickox, *Her story: UTA grad isolated at New Jersey hospital in Ebola quarantine*, DALLAS NEWS, Oct. 29, 2014, <http://www.dallasnews.com/ebola/headlines/20141025-uta-grad-isolated-at-new-jersey-hospital-as-part-of-ebola-quarantine.ece>.

17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*

21. *Id.*

22. *Id.*

23. *Id.*

24. *Id.*

25. Arco, *supra* note 13.

26. *Id.*

27. *Id.*

until November 10, twenty-one days²⁸ after she was last exposed to the Ebola virus.²⁹ Knowing the “plan”, Maine Governor Paul LePage posted a state trooper outside Hickox’s door and gave orders to arrest her if she tried to leave.³⁰ Governor LePage and the state of Maine sought a court order to allow the mandatory quarantine order in court.³¹ On October 30, Hickox defied the quarantine by leaving her house for a bike ride with her boyfriend.³² Though they were followed by police, they could not be arrested because the court order had not been signed.³³

On October 31, the Maine judge hearing the mandatory quarantine request denied the state permission to enforce the quarantine.³⁴ Judge LaVerdiere ruled that Hickox should continue to self-monitor and coordinate her travels with state officials, but since she was asymptomatic she was not infectious and therefore not a danger to the public by the clear and convincing evidence, the standard required to allow the degree of restriction requested.³⁵

B. Ebola Symptoms, Treatments, and Dangers

Ebola is a filo virus about which very little is truly understood or known.³⁶ It has five strains: Tai Forest (previously called Ivory Coast), Sudan, Zaire, Bundibugyo, and Reston.³⁷ The Tai Forest, Sudan, Bundibugyo, and Zaire strains are all infectious in humans.³⁸ The Ebola Reston strain has so far not been infectious to humans,³⁹ but is also the only strain of Ebola that has been seen in an outbreak outside of West Africa.⁴⁰ Zaire is generally the most deadly strain, with a mortality rate

28. The longest known incubation period for Ebola. *See infra* Section IB.

29. Julia Bayly, *Nurse Kaci Hickox vows to break new Ebola quarantine protocol in Maine, take issue to court*, N.Y. DAILY NEWS, Oct. 29, 2014, <http://www.nydailynews.com/life-style/health/kaci-hickox-remains-defiant-won-follow-maine-ebola-quarantine-article-1.1991074>.

30. *Id.*

31. *Id.*

32. *Kaci Hickox defies Maine Ebola quarantine with morning bike ride*, DALLAS MORNING NEWS, <http://www.dallasnews.com/ebola/headlines/20141030-kaci-hickox-defies-ebola-quarantine-in-maine.ece> (last updated October 31, 2014).

33. *Id.*

34. Scott Neuman, *Maine Judge Rejects State’s Bid to Restrict Nurse’s Movements*, <http://www.npr.org/blogs/thetwo-way/2014/10/31/360355777/maine-judge-issues-order-restricting-nurses-movements> (last updated October 31, 2014).

35. *State v. Hickox*, No. 2014-CR-36 (Me. Dist. Ct., Oct. 31, 2014).

36. The animal reservoir that begins natural outbreaks for instance is unknown, but educated guesses place it in bats. *See* Joshua Hammer, *The Hunt for Ebola*, SMITHSONIAN.COM (Nov. 2012) <http://www.smithsonianmag.com/science-nature/the-hunt-for-ebola-81684905/?no-ist> (talking about the rush to Uganda after an outbreak of Ebola in August of 2012 to try to find what animal vector had begun the outbreak. Scientists were on the scene within days, but still failed to determine the animal reservoir); *see also Ebola virus disease*, WHO, <http://www.who.int/mediacentre/factsheets/fs103/en/> (last updated August 2015) (talking about the idea that fruit bats are the natural Ebola virus hosts).

37. *About Ebola Virus Disease*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/vhf/ebola/about.html> (last updated Nov. 3, 2015).

38. *Id.*

39. *Reston ebolavirus*, SINO BIOLOGICAL INC. <http://www.sinobiological.com/Reston-ebolavirus.html> (last visited Dec. 19, 2015) (stating that the Reston strain of Ebola is so far not caused Ebola virus disease in people exposed to it); *see also About Ebola Virus Disease*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/vhf/ebola/about.html> (last visited Feb. 14, 2015).

40. Ebola Reston has at least twice before broken out in Reston Virginia in the United States in a monkey

around 57-90%.⁴¹

Ebola is a hemorrhagic fever virus with shocking symptoms. The symptoms include high fever, headache, aching body, diarrhea, vomiting, sneezing, coughing, and hemorrhaging which is what gives the virus its designation.⁴² There is no cure for Ebola and very few treatments are available.⁴³ Once a person begins to show symptoms of Ebola, they are infectious and can transmit the virus; as the person becomes sicker they become more likely to transmit the virus.⁴⁴ Ebola is not airborne, and can only be spread by human to human contact with blood or bodily fluids.⁴⁵ A person who coughs or sneezes, however, releases droplets of saliva into the air which if breathed in or if they are ingested some other way such as through the eyes, can infect a person.⁴⁶ Such transmission is not considered airborne, but instead a spread based on fluid transfer; airborne viruses transmit without any fluid involvement at all.⁴⁷

Ebola has periodically broken out in West Africa, but has generally been easily controlled there because of the lower general technology level that prevents extensive travelling. The virus incapacitates a person fairly quickly once they start showing symptoms since they cannot easily move around by themselves. As such, this is a virus that responds very well to quarantine measures. The Centers for Disease Control's recommendations for controlling transmission of the Ebola virus, for instance, look a lot like quarantine measures.⁴⁸ These measures, if not followed, make transmission of the virus fairly easy, especially to healthcare workers. If healthcare workers contract the virus, the epidemic can quickly spiral out of control because there are fewer people to care for the sick, exacerbating the panic and increasing the

house. See RICHARD PRESTON, *THE HOT ZONE* (1994) (telling the true story of the first outbreak of Ebola Reston in Reston Virginia).

41. See Tara Waterman, *Ebola Viruses that Cause Disease in Humans* (1999), <https://web.stanford.edu/group/virus/filo/humanviruses.html> (listing the mortality rates of all known outbreaks of Ebola up to 1996); see also Hammer, *supra* note 36 (identifying 90% as the upper mortality rate).

42. *Signs and Symptoms*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vhf/ebola/symptoms> (last updated Nov. 2, 2014) (listing the various symptoms of the Ebola virus).

43. WHO, *supra* note 36 (noting all treatments that are currently approved involve supportive care such as intravenous fluids and specific symptom treatment. There are other treatments such as vaccines and immune therapy that are showing promise); see also *Ebola Treatment*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vhf/ebola/treatment/> (last updated Jul. 22, 2014).

44. WHO, *supra* note 36, (explaining that before having symptoms, a person is unable to infect anyone else); see also *Review of Human-to-Human Transmission of Ebola Virus*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/vhf/ebola/transmission/human-transmission.html> [hereinafter *Review*] (last updated Oct. 1, 2015).

45. *Review*, *supra* note 44.

46. *Review*, *supra* note 44 (noting that the viral load of a patient increases the transmission risk because the exposure need is less because each fluid droplet contains an immense load of the virus).

47. Healthcare Infection Control Practices Advisory Committee, *Part I: Review of Scientific Data Regarding Transmission of Infectious Agents in Healthcare Settings*, CTRS. FOR DISEASE CONTROL AND PREVENTION, http://www.cdc.gov/hicpac/2007ip/2007ip_part1.html (last updated Nov. 25, 2009).

48. *Questions and Answers on Ebola*, CTRS. FOR DISEASE CONTROL AND PREVENTION, <http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/qa.html> (last updated Nov. 30, 2015) (The CDC protection guidelines recommends: washing hands frequently or using an alcohol based sanitizer, avoiding contact with blood and bodily fluids, not handling items that may been in contact with the blood of bodily fluids of a sick person, not touching a body if that person died from Ebola, and not touching bats, nonhuman primates or their blood and fluids or eating the raw meat from these animals).

travel people do as they seek medical assistance.

In the past, the biggest danger from Ebola was the civil unrest and fear that would follow an outbreak. The outbreak, however, was usually contained in the immediate area.⁴⁹ Now there is more of a concern with the international travel available of the epidemic becoming a pandemic and spreading across the world. With a virus being able to easily travel via a person, it can get out of the area where it is usually seen and into an area that does not recognize the virus.⁵⁰ Few doctors look for Ebola in the United States on a regular basis, and that leads to mistakes and possible catastrophic consequences. A further threat with a bioterrorist attack is the virus. Ebola in this case, could be engineered. The engineering could take the form of raising the mortality rate, making certain treatments ineffective, or making it airborne. However, Ebola is quite deadly enough already. There are very few treatments at this time, and the panic and consequences of the panic would already be devastating. For instance, President Obama has said this current outbreak is a national security emergency.⁵¹ If this is a national security emergency when the outbreak is primarily located on a different continent and all medical personnel are specifically looking for Ebola, then the possible consequences of a covert bioterrorism attack are staggering.

III. QUARANTINE STATUTES

Quarantine refers to the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and therefore may become infectious.⁵² Quarantine of exposed persons is a public health strategy, like isolation⁵³, that is intended to stop the spread of infectious disease.⁵⁴ It has been medically very effective in protecting the public from disease.

Section II will be divided into two parts. Part A will discuss the federal quarantine statutes 42 U.S.C. §265-268. Part B will discuss two state quarantine statutes, those of New Jersey and Maine. New Jersey and Maine were chosen because Hickox was caught in both statutes, but only Maine actually attempted to

49. *Factors that contributed to undetected spread of the Ebola virus and impeded rapid containment*, WHO, <http://www.who.int/csr/disease/ebola/one-year-report/factors/en/> (last visited Feb. 14, 2015) (listing the factors that previously helped outbreaks be contained).

50. HUGH PENNINGTON, WHO, SMALLPOX AND BIOTERRORISM, 762-67 (2003) (discussing bioterrorism smallpox example in England where it was not expected).

51. David Hudson, *A Major Increase in Our Response to the Ebola Outbreak*, THE WHITE HOUSE BLOG, <http://www.whitehouse.gov/blog/2014/09/16/major-increase-our-response-ebola-outbreak> (Sept. 16, 2014, 7:10 PM) (designating the current outbreak of Ebola as a national emergency).

52. *Fact Sheet on Isolation and Quarantine*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/sars/quarantine/fs-isolation.html> (last updated May 3, 2005).

53. *Id.* (“Isolation refers to the separation of persons who have a specific infectious illness from those who are healthy and the restriction of their movement to stop the spread of that illness. Isolation allows for the focused delivery of specialized health care to people who are ill, and it protects healthy people from getting sick. People in isolation may be cared for in their homes, in hospitals, or in designated healthcare facilities. Isolation is a standard procedure used in hospitals today for patients with tuberculosis (TB) and certain other infectious diseases. In most cases, isolation is voluntary; however, many levels of government (federal, state, and local) have basic authority to compel isolation of sick people to protect the public.”)

54. *Id.*

enforce their statute in court.⁵⁵

A. Federal Quarantine Statute

Despite the historical medical success of quarantine, it has rarely been utilized in the United States.⁵⁶ The federal quarantine statute always reigns supreme over a state quarantine in any conflict because of the commerce clause. *Gibbons v. Ogden* defined spheres of influence and the federalist style of government that we have today.⁵⁷ In that case, the Court decreed that in any situation in which the federal and the state spheres overlap and come into conflict that the federal side would win out.⁵⁸ Consequently, if the federal government declares a quarantine and an individual state does not, then a quarantine will still take effect.

The United States federal quarantine statute is found in 42 U.S.C. §264-268. It authorizes quarantine under certain conditions only. Section 264 lays out who can institute a quarantine and how a quarantine may be carried out. The Surgeon General, with approval from the Secretary of Health and Human Services, makes the decision for quarantine.⁵⁹ However, the breadth of the quarantine is limited to those diseases that have been announced by executive order of the President of the United States.⁶⁰ The executive order listing the possible diseases for quarantine measures has been superseded several times, with the most recent order being Executive Order 13375 from April 1, 2005.⁶¹ The list of possible diseases to activate the quarantine statute is not very lengthy. Including the addition from 2005, the statute only lists thirteen diseases.⁶²

What is telling about the executive orders are the changes between them. Since the quarantine statute was enacted in 1944, there have been six different executive orders listing the possible diseases for which quarantine may be enacted.⁶³ The statute is very rigid. Unless the disease in question is one of the thirteen named diseases in

55. *Maine Nurse Kaci Hickox Vows to Fight Ebola Quarantine Order*, NBC NEWS STORYLINE (Oct. 30, 2014) <http://www.nbcnews.com/storyline/ebola-virus-outbreak/maine-nurse-kaci-hickox-vows-fight-ebola-quarantine-order-n236416>.

56. *Legal Authorities for Isolation and Quarantine*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/quarantine/aboutlawsregulationsquarantineisolation.html> (last updated Oct. 8, 2014) (stating federal quarantine on a large scale was last utilized during the “Spanish Flu” pandemic in 1918 to 1919).

57. See *Gibbons v. Ogden*, 22 U.S. 1 (1824) (overriding state act giving certain people a monopoly on steam navigation on the waters of New York for 30 years because federal law reigns supreme).

58. *Id.*

59. 42 U.S.C. §264 (2002).

60. *Id.*

61. Exec. Order No. 13,375, 70 Fed. Reg. 17,299 (Apr. 1, 2005) (amending Executive Order 13,295 as to what diseases qualify for a quarantine).

62. The diseases are Cholera, Diphtheria, Infectious Tuberculosis, Plague, Smallpox, Yellow Fever, Viral Hemorrhagic Fevers (Lassa, Marburg, Ebola, Crimean-Congo, South American, and others not yet isolated or named), Severe Acute Respiratory Syndrome (SARS), and influenza caused by novel or re-emergent influenza viruses that are causing, or have the potential to cause, a pandemic. Exec. Order No. 13,295, 68 Fed. Reg. 17,255 (Apr. 4, 2003); Exec. Order No. 13,375, 70 Fed. Reg. 17,299 (Apr. 1, 2005) (Viral Hemorrhagic Fevers could cover more than the five diseases it currently covers due to the “others not yet isolated or named” clause.).

63. Exec. Order No. 9708, 11 Fed. Reg. 3241 (Mar. 26, 1946); Exec. Order No. 10,532, 19 Fed. Reg. 3209 (May 28, 1954); Exec. Order No. 11,070, 27 Fed. Reg. 12,393 (Dec. 12, 1962); Exec. Order No. 12,452, 48 Fed. Reg. 56,927 (Dec. 22, 1983); Exec. Order No. 13,295, 68 Fed. Reg. 17,255 (Apr. 4, 2003); Exec. Order No. 13,375, 70 Fed. Reg. 17,299 (Apr. 1, 2005) (amending order 13,375).

the standing executive order, the Surgeon General must go to the President first before initiating and implementing quarantine to get a new executive order with the new disease.⁶⁴ The executive orders state that it is for the purpose of “specifying certain communicable diseases for regulations providing for the apprehension, detention, or conditional release of individuals to prevent the introduction, transmission, or spread of suspected communicable diseases.”⁶⁵ The order goes on to specify that the following diseases it lists are specified pursuant to §361(b) of the Public Health Service Act.⁶⁶ That means that if there was an engineered virus, currently unknown to science, it might not qualify under the statute, and require a new executive order to give the power to the Surgeon General and the Secretary of Health and Human Services to enact the quarantine.⁶⁷ Presumably such a situation with emerging viruses and new research is why the executive orders listing the possible diseases keeps changing.⁶⁸ Terrorists could conceivably exploit such a weakness by bioengineering a virus that does not qualify. Additionally, such a disease would be favored for other reasons besides skirting the statute.⁶⁹

Quarantine and isolation are rarely used today, but have occasionally been ordered order enforced when a person “exhibits behavior that puts himself or others in danger.”⁷⁰ A person can exhibit such behavior in many ways including by disease. One of the cases involving a person involuntarily quarantined and isolated is *Best v. Bellevue Hospital*.⁷¹ The infected person in that case had infectious tuberculosis (TB) and had refused to take prescribed medications and expressed an interest in leaving the community, making it hard to monitor his progress in recovering from the disease.⁷² When the infected person tried to leave the community, Bellevue Hospital took the case to court in order to quarantine him.⁷³ Based on *City of New York v. Doe*⁷⁴, Bellevue Hospital was able to succeed in court and require the infected person to remain in the community where he could be directly monitored for compliance⁷⁵. *City of New York* also involved a tuberculosis patient who could not be trusted to

64. Exec. Order No. 13,295, 60 Fed. Reg. 17, 255 (Apr. 4, 2003).

65. *Id.*

66. *Id.*

67. The exception would be if the disease could somehow be defined so as to catch it under one of the more open listed diseases such as some type or strain of influenza or a viral hemorrhagic fever that is not yet isolated or named.

68. See Exec. Order. No. 9708, 11 Fed. Reg. 3241 (Mar. 26, 1946) (listing Anthrax, Chancroid, Cholera, Dengue, Diphtheria, Favus, Gonorrhea, Granuloma Inguinale, Infectious Encephalitis, Leprosy, Lymphogranuloma Venereum, Meningococcus meningitis, Plague, Poliomyelitis, Psittacosis, Ringworm of the Scalp, Scarlet Fever, Smallpox, Steptococcic Sore Throat, Syphilis, Trachoma, Tuberculosis, Typhoid Fever, Typhus, and Yellow Fever). Of all those listed, only Diphtheria, Plague, Smallpox, Tuberculosis (but only infectious Tuberculosis), and Yellow Fever remain on the list.

69. Council for Responsible Genetics, *Plan to Engineer Smallpox Virus Causes Alarm*, <http://www.councilforresponsiblegenetics.org/ViewPage.aspx?pageId=145> (Last updated Nov. 12, 2004) (Such a virus probably would not have been seen before reducing the reaction time, possible treatments, and causing more panic).

70. *O'Connor v. Donaldson*, 422 U.S. 563, 575 (1975) (involving a man involuntarily committed to a state mental hospital claiming he was intentionally and maliciously deprived of his constitutional right to liberty).

71. 115 F. App'x 459 (2d Cir. 2004).

72. *Id.* at 7.

73. *Id.*

74. *City of New York v. Doe*, 205 A.D.2d 469 (NY. App. Div. 1994).

75. *Bellevue*, 115 F. App'x.

properly follow the required medication therapy.⁷⁶ The required standard for federal quarantine of an individual was fleshed out in *City of New York*, requiring a finding of an individual's "inability to comply with the projected eighteen to twenty four month prescribed course of medication," and based on a "refusal to cooperate with . . . repeated efforts to have her [him] participate in voluntary forms of directly observed therapy."⁷⁷ With a standard that has been upheld at least twice in court, in *City of New York* and *Bellevue Hospital*, quarantine is an accepted, though rarely utilized, response to the spread of contagious disease.

The apprehension, detention, or conditional release of individuals is the next section of §264.⁷⁸ It specifies that apprehension, detention, or conditional release of individuals under the quarantine statute is only for the purpose of preventing the introduction or spread of the diseases specified in the executive order.⁷⁹ The limitation of the quarantine statute is that it may only be used for preventing the spread of introduction of such diseases. That limitation requires that the government find another way to combat a potential bioterror attack. For example, if the original infector, patient zero, is a terrorist deliberately infecting people, it is imperative to keep him or her confined even after he or she is no longer infectious. Under this quarantine statute, another statute, likely a terrorism statute, would have to be utilized in order to legally keep that person or persons in detention because quarantine does not allow a person to be held once the person is no longer infectious.⁸⁰

B. State Quarantine Statutes

i. New Jersey Statute

The New Jersey quarantine statutes are divided into several sections that define the authority, penalties, the police power, and the limitations of quarantine. The authority section gives the power to issue quarantine to the local boards of health, subject to the State sanitary code.⁸¹ The penalty section dictates that any person violating the communicable diseases provisions or failing to perform any duty imposed on time and in the manner dictated, is liable to a fine of ten to one hundred

76. *Id.* at 3.

77. *City of New York*, 205 A.D.2d at 470.

78. 42 U.S.C. §264(b) (2015) ("Regulations prescribed under this section shall not provide for the apprehension, detention, or conditional release of individuals except for the purpose of preventing the introduction, transmission, or spread of such communicable diseases as may be specified from time to time in Executive orders of the President upon the recommendation of the Secretary, in consultation with the Surgeon General.").

79. *Id.*

80. *Id.*

81. N.J. STAT. ANN. § 26:4-2(a)-(g) (West 2012): ("The local boards of health have the power to declare what diseases are communicable declare when any communicable disease has become epidemic, require the reporting of communicable diseases, maintain and enforce proper and sufficient quarantine, wherever deemed necessary, remove any person infected with a communicable disease to a suitable place, if in its judgment removal is necessary and can be accomplished without any undue risk to the person infected, disinfect any premises when deemed necessary, remove to a proper place to be designated it all articles within its jurisdiction, which, in its opinion shall be infected with any matter likely to communicate disease and to destroy such articles, when in its opinion the safety of the public health requires it.").

dollars for each offense.⁸² Such a low penalty is unlikely to deter anyone making enforcement all that much more difficult.

The State health department may force a local health board to act by sending a written notice signed by the Commissioner of Health to the local board, but the local board of health must still issue the quarantine.⁸³ The board may also be compelled to take the action that was ordered by the notice if they fail to obey a court order.⁸⁴

The requirements of the New Jersey quarantine statute were fleshed out by *City of Newark v. J.S.* in 1993.⁸⁵ *City of Newark* dictated that the tuberculosis civil commitment statute, which is essentially a specific version of the quarantine statute for tuberculosis, would have to abide by contemporary standards of due process.⁸⁶ The due process standards required the city to establish that the patient presented significant risk to others unless isolated, and that the chosen confinement (a hospital in this case) was the least restrictive mode of isolation.⁸⁷ In *City of Newark* the city did establish significant risk and that the confinement to the hospital was the least restrictive mode of isolation.⁸⁸ J.S. became the focus of a New Jersey quarantine order when he tried to leave the hospital against medical advice.⁸⁹ There was a history of failure to take the medication properly while in the hospital and when out of the hospital.⁹⁰ Tuberculosis is highly infectious and very dangerous when resistant to drugs.⁹¹ Tuberculosis is likely to become resistant when medication regimens are not properly followed.⁹² A person with drug resistant tuberculosis can then spread the resistant strain.⁹³ The danger posed by the risk of the strain becoming drug resistant, and J.S. then spreading the strain, was enough to establish a significant risk, thereby justifying confinement.⁹⁴ The judge also held that the hospital confinement was the least restrictive mode of isolation proposed without detailing why that was the case.⁹⁵

New Jersey's quarantine statute therefore must be activated by the local board of health, but may be compelled under certain circumstances.⁹⁶ It requires that the person being quarantined pose a significant risk of danger to themselves or others, and that the quarantine, wherever or however it may be enforced, is the least restrictive means of isolation.⁹⁷

82. N.J. STAT. ANN. §26:4-129 (West 2015).

83. N.J. STAT. ANN. §26:4-4 (West 2015).

84. *Id.* The police power also gives schools some discretion on school attendance without the local board of health when there is a contagious disease involved by prohibiting the attendance of any teacher or student for a length of time. Such a situation where schools are shut down by the school district due to contagious disease is seen often usually with the flu.

85. *City of Newark v. J.S.*, 652 A.2d 265, 268 (N.J. Super. Ct. Law Div. 1993).

86. *Id.*

87. *Id.* at 274-75.

88. *Id.* at 278.

89. *Id.* at 268.

90. *Id.*

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.* at 277.

95. *Id.* at 278.

96. *Supra* note 83.

97. ME. REV. STAT. ANN. 22. § 820(1)(B)(1) (2015).

ii. Maine Quarantine Statute

The Maine public quarantine statute is laid out much the same way as the New Jersey statute with three sections. First, there is the authority section; second, a penalty section; and third, a police power and limitation section. Authority is given in the event of an actual or threatened epidemic of a communicable disease.⁹⁸

In an extreme emergency, procedures for isolation, care, and treatment of infected persons are permitted by the department of health without the specific steps of a court order.⁹⁹ Emergency temporary custody is limited to five days unless a petition is filed.¹⁰⁰ In order for quarantine to be enacted, however, the governor must declare an “extreme public health emergency.”¹⁰¹ An extreme public health emergency requires the occurrence or imminent threat of widespread exposure to a highly infectious agent with imminent threat of substantial harm to the population.¹⁰² A court order is also required in addition to the extreme public health emergency unless:

[there is] reasonable cause to believe that the person has been exposed to or is at significant medical risk of transmitting a communicable disease that poses a serious and imminent risk to public health and safety; there are no less restrictive alternatives available to protect the public health and safety; and the delay involved in securing a court order would pose an imminent risk to the person or a significant medical risk of transmission of the disease.¹⁰³

A court order means that the reasonable cause and imminent risk requirements are met, but it requires judicial review.¹⁰⁴ To obtain a court order, a hearing is required before a district court judge, superior court justice, or a state Supreme Court justice.¹⁰⁵ The hearing must take place as soon as reasonably possible but no later than 48 hours after detainment, and notice is required.¹⁰⁶ Under a standard of clear and convincing evidence, the department must prove (1) the person was exposed to, or is a significant medical risk of transmitting, a communicable disease with serious imminent risk to public health; and (2) there are no less restrictive alternatives available.¹⁰⁷ Penalties are confined to injunctions and a civil fine not to exceed \$500.

There appear to be no court case challenges in Maine under the current quarantine statute prior to Kaci Hickox’s challenge. The statute, however, is very similar to New Jersey’s, and so the significant medical risk can likely be defined as similar while adding the caveat of exposure as a justification.

98. *Id.* § 802(1) (2012).

99. ME. REV. STAT. ANN. 22, § 802(2) (2012).

100. ME. REV. STAT. ANN. 22, § 810(4) (2015).

101. ME. REV. STAT. ANN. 22, § 802(2-A) (2012).

102. ME. REV. STAT. ANN. 22, § 801(4-A) (2008).

103. ME. REV. STAT. ANN. 22, § 820(1) (B)(1) (2015).

104. ME. REV. STAT. ANN. 22, § 820(2) (2015).

105. *Id.*

106. *Id.*

107. *Id.* at (C).

IV. FOURTH AMENDMENT SEARCH AND SEIZURE

Quarantine is in effect the seizure of a person. A seizure, according to the Supreme Court, is “the application of physical force, however slight, or, where that is absent, submission to an officer’s ‘show of authority’ to restrain the subject’s liberty.”¹⁰⁸ The person is what is being seized in order to prevent the spread of a contagious disease. All searches and seizures are covered by the Fourth Amendment. The Fourth Amendment reads:

The right of people to be secure in their persons, houses, papers, and effects against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation and particularly describing the place to be searched, and the persons or things to be seized.¹⁰⁹

Literally, a person being subjected to quarantine is being required to submit to authority not to leave a certain place. The key behind the Fourth Amendment is reasonableness. All seizures by a government agent must be reasonable.¹¹⁰ Reasonableness can be a difficult standard but is closely related to probable cause. To determine if a seizure comports with the standard, one asks whether a reasonable person would (1) feel “free to leave” or (2) “free to decline the officer’s request or otherwise terminate the encounter.”¹¹¹ If a person does not fall under either the first or second prong, then it is a search or seizure and the authority, usually a police officer or agent, must have a warrant.¹¹² A seizure is reasonable when there is probable cause. Probable cause is the same standard as is required to obtain a search warrant. Probable cause does not require specific evidence.¹¹³ Instead, it means “fair probability.”¹¹⁴ There are, however, certain exceptions to the warrant requirement.

A warrant is not always feasible in a situation that is evolving quickly, such as an epidemic or outbreak. Therefore, courts have developed five exceptions where a search and seizure may happen without a warrant or probable cause in an emergency.¹¹⁵ The five situations are: (1) consensual; (2) individuals in transit; (3) closely regulated commercial industries; (4) special needs exception, with an imminent threat to public health or safety included; and (5) an investigatory stop also known as a “Terry” stop.¹¹⁶ Only three of these exceptions can possibly apply to the Kaci Hickox situation: (1) consensual; (2) individuals in transit; and (3) the special needs exception.

108. *California v. Hodari D.*, 499 U.S. 621, 624 (1991).

109. U.S. CONST. amend. IV.

110. *Id.*

111. *Brendlin v. California*, 551 U.S. 249, 255 (2007) (person was seized during a traffic stop because a reasonable person would not feel they were free to leave the scene).

112. *Id.*

113. *Adams v. Williams*, 407 U.S. 143, 149 (1972).

114. *Illinois v. Gates*, 462 U.S. 213, 238 (1983).

115. See Kelly S. Culpepper, *Bioterrorism and the Legal Ramifications of Preventive and Containment Measures*, 12 QUINNIPIAC HEALTH L.J. 245, 269 (2008/2009); see also Georgetown Law Journal Annual Review of Criminal Procedure, 40 GEO. L.J. Ann. Rev. Crim. Proc. 44, 45 (2011).

116. Culpepper, *supra* note 115, at 269-71.

First, a consensual situation would be when a person gives their consent to a search and seizure.¹¹⁷ Searches and seizures, in response to consent, must meet two criteria.¹¹⁸ They must be based on consent that was (1) voluntary and knowingly and (2) from someone with the authority to give it.¹¹⁹ Voluntary consent is based on the “totality of circumstances” where no single factor is dispositive.¹²⁰ Generally, consent that is given after the fact is invalid, and consent may be revoked at any time.¹²¹ During a biological epidemic, consent suffices for most people since the CDC consistently reports that the vast majority of people consent to isolation, monitoring, and treatment.¹²²

Second, there are individuals in transit, for example in customs searches.¹²³ Individuals in transit would be people traveling, such as flying on plane, taking a train, riding on a bus, or crossing a border in some way. Those individuals have been held to have a reduced expectation of privacy.¹²⁴ Such an interpretation does and will allow emergency responders, such as health officials, to stop people as they travel in the United States or arrive in the United States.¹²⁵ There is no requirement for suspicious activity or infections.¹²⁶ This exception is one of the easiest ways to prevent obviously contagious diseases from entering the country, because routine inspections at customs can often turn up people who are visibly ill.¹²⁷ Those types of normal, routine inspections or seizures would normally require a warrant, except for the fact that they are travelers.¹²⁸

Third, there is the special needs exception that applies to both searches and seizures. An imminent threat to public health or safety is a special needs exception.¹²⁹ Such circumstances, as danger to public health or safety, requires probable cause and “exigent circumstances” that render it necessary.¹³⁰ A person’s home or dwelling is a particularly protected category. The only exigent circumstances that can allow entry into a home or dwelling, even with probable cause, are fear of imminent destruction of evidence, hot pursuit, or immediate threats to the safety of

117. Culpepper, *supra* note 115, at 269.

118. See *Illinois v. Rodriguez*, 497 U.S. 177, 186 (1990).

119. *Id.*

120. *Schneekloth v. Bustamonte*, 412 U.S. 218, 231-33 (1973).

121. *Georgetown*, *supra* note 115, at 98.

122. *Fact Sheet on Isolation and Quarantine*, CTRS. FOR DISEASE CONTROL, <http://www.cdc.gov/sars/quarantine/fs-isolation.html> (last updated May 3, 2005).

123. Culpepper, *supra* note 115, at 269.

124. *United States v. Berisha*, 925 F.2d 791, 795 (5th Cir. 1991) (holding that individuals at border crossing are on notice that their privacy is subject to invasion); see also *United States v. McDonald*, 100 F.3d 1320, 1324-25 (7th Cir. 1996) (holding that people on common thoroughfare transit, such as on a bus, train, airplane, or other mass transit, have a substantially less expectation to privacy than those in a fixed dwelling).

125. The officials would be acting under 42 C.F.R. §§ 70-71 (2013), which is the regulatory implementation of 42 U.S.C. § 264 (2002), the federal quarantine statute.

126. Culpepper, *supra* note 115, at 270.

127. Many contagious diseases that would fall under 42 U.S.C. § 264 (2002), have symptoms that are quite visible when in the most contagious stages, such as Smallpox, with the obvious rash, and Ebola, with bleeding and hemorrhaging from multiple orifices.

128. Culpepper, *supra* note 113, at 270.

129. *Id.*

130. See *Krik v. Louisiana*, 536 U.S. 635, 638 (2002) (finding that warrantless entry into person’s home is unlawful, unless both requirements of probable cause and exigent circumstances exist).

the public or officers.¹³¹ The immediate threat to public health or safety is generally the key to a biological epidemic search and/or seizure. There can, however, be a clear, special need due to the imminent threat to public health and safety if a person infected with a highly contagious and dangerous disease is free to move around in public and fails to take the necessary precautions.

V. APPLICATION TO KACI HICKOX CASE

First, beginning with the federal quarantine statute at 42 U.S.C. §264, Ebola does qualify as one of the diseases for which the surgeon general is allowed to make and enforce a quarantine, but such a quarantine was not enacted.¹³² Though an Ebola Czar was appointed by President Obama in order “to oversee the federal government’s overall effort to contain the disease,” there was never an announcement or indication of a federal quarantine.¹³³ Because there was no federal quarantine when Hickox returned to the United States, the state statutes reigned supreme.

Since Hickox flew into New Jersey, she first became subject to their quarantine. New Jersey’s quarantine has specific requirements, however, that must be met before it may take effect. Therefore, New Jersey needed a way to legally detain Hickox and discover if she met the requirements of their quarantine in order to apply it. They were able to detain her through seizure, without a warrant, due to exceptions of the Fourth Amendment warrant requirements. First, to establish that it was a seizure of Hickox, the reasonableness test applied. Hickox was stopped in customs, removed to a separate room, repeatedly questioned by different people, and given little to no information. She unlikely felt “free to leave” or free to decline the officers’ requests or otherwise terminate the encounter. Therefore, she was seized for purposes of the Fourth Amendment. However, three of the five exceptions to the seizure warrant requirement apply in Hickox’s case, which allowed New Jersey authorities to stop her long enough to determine whether the requirements for quarantine were met.

First, Hickox initially consented, voluntarily and knowingly, to the seizure. She willingly told customs officials and investigators that she was returning from West Africa and had been in direct contact with Ebola victims in her capacity as a humanitarian nurse, so her consent was voluntary. There is no reason to believe that Hickox, as an adult woman, was incapable of giving her consent knowingly and voluntarily. Because she consented to the questions and the temperature scan, neither violated her Fourth Amendment rights. However, consent may be revoked at any time and it certainly seems that there were several points at which Hickox revoked her consent. Revocation of her consent would require New Jersey to find a new exception to continue the search and seizure.

Second, Hickox was in transit as a foreign traveler. She was traveling from West Africa to Maine and was stopped during those travels. As discussed earlier, there is a significant drop in the level of privacy that can be expected by travelers according

131. See Georgetown, *supra* note 115, at 67.

132. Exec. Order No. 13,295, 68 Fed. Reg. 17,255 (Jul. 31, 2014) (listing Ebola as one of the diseases for which a quarantine is allowed to be instituted).

133. Juliet Eilperin & David Nakamura, *Obama Taps Ron Klain as Ebola czar*, WASHINGTON POST, Oct. 17, 2014, <https://www.washingtonpost.com/news/post-politics/wp/2014/10/17/obama-taps-ron-klain-as-ebola-czar/>.

to the Supreme Court. There is no requirement for suspicious activity or infections, but the argument could be made that Hickox was suspicious, merely because she was returning from West Africa where Ebola was, and is still, raging. Hickox, however, was not visibly ill. Because she did consent to the temperature scan, it was discovered that there was a heightened temperature that could indicate Ebola infection, and she was flushed. Once those symptoms arose, there existed a reasonable belief that she could be infected.

Third, and finally, Hickox represented an imminent threat to public health or safety for the special needs exception. Probable cause and exigent circumstances are met in the Hickox case. Once the temperature scan, to which Hickox consented, indicated an elevated temperature and her flushed appearance were added to the information that she was returning from Sierra Leone, where she treated Ebola patients, there was probable cause to seize her. Given her travel and exposure, both elevated temperature and flushed face and neck are symptoms that could indicate infection with Ebola. A person infected with Ebola and showing symptoms, is an imminent threat to public health or safety because once the individual is symptomatic, he or she can spread the disease. While Ebola does not spread particularly easily, it is explosive under certain conditions. With its dramatic symptoms and high death toll in Africa, it is a particular threat for multiple reasons including health, economic disruption, and public panic.

In light of these considerations, New Jersey had the right to seize Hickox. That right continued even after she revoked her consent because there were other exceptions that the situation met. Once it was established that she did not have a temperature, that her flushed face was not related to Ebola, and that she was negative for the virus, the right to seize her became more complicated. Once it was established that she was not currently symptomatic, the danger and threat of the virus dramatically fell, since a person is not contagious without symptoms. Twenty-one days is the outer limit for showing symptoms and becoming sick; but only reasonable caution, until symptoms show, is necessary, rather than isolation during the entire possible incubation period.

The risk of Hickox being infected, due to her possible symptoms and her aggravated stance on the quarantine, made the risk of an Ebola outbreak imminent and the confinement at the hospital the least restrictive means possible. Since Hickox did not live in New Jersey, she had no home where she could be satisfactorily confined. Furthermore, confinement in a hotel or nearby apartment would tend to expose other members of the public to danger, and therefore was not a satisfactory option. Additionally, Hickox's frustration with her confinement indicated that she might not (indeed, it was discovered, would not) obey a quarantine, if given the opportunity to break it.

New Jersey recognized the limit of the statute, and reasonableness, when they released Hickox from quarantine and transported her to Maine at her request, once she had gone twenty-four hours without symptoms and her doctors declared she had a clean bill of health for the time-being. Once Hickox reached Maine, she became subject to that state's quarantine laws. The state's right to seize her, however, was much more tenuous than New Jersey's right because Hickox was asymptomatic, so the danger to the public was considerably lessened. By then, Hickox had most

definitely revoked her consent for search and seizure. Hickox's travel came to an end as soon as she reached her home. Maine authorities wanted to prevent Hickox from leaving her home, and that required the situation to meet both the Fourth Amendment requirements and the Maine statutory requirements of quarantine.

To comport with the Fourth Amendment, Maine's only option would have been to invoke an imminent threat to public health or safety exception. Under Maine's quarantine statute, this would be the equivalent of the extreme emergency clause. Simply classifying Ebola as an extreme public health emergency under the Maine statute, could be questionable. Ebola, while highly dangerous, is generally not very easily spread. Ebola is only highly infectious when bodily fluids are involved, but the symptoms of the disease render such circumstances frequent. While the symptoms of Ebola dramatically increase the odds of bodily fluids being involved, people still must come into direct contact with those fluids in order to become infected. Such direct contact is, however, usually rare, unless it is a close family member or healthcare worker providing care to the infected person. Because of western customs and healthcare, the chance of Ebola spreading extensively and quickly in the United States, due to a returning healthcare worker, was slim.

The second requirement, an imminent threat of substantial harm to the population, is equally difficult to meet for Ebola. Ebola is a very dangerous disease with the capability to substantially harm a population. The question is whether Ebola is dangerous in the way the statute intends to encompass. Taking the two requirements together, it would appear that the statute is speaking to a virus or agent that has the capability to substantially harm a population because of its highly infectious nature and the difficulty in preventing the spread of such a virus or agent.

Ebola does have the capability to substantially harm a population, because of its infectious nature, under certain circumstances. In West Africa, those circumstances exist. There are not enough doctors, medical equipment, or training to handle the virus. Additionally, some customs, such as burial practices and medical treatment, in that part of the world, can facilitate the spread of disease.¹³⁴ Traditional burial practices in West Africa, in particular, facilitate the spread of Ebola.¹³⁵ Furthermore, an instinctive fear of healthcare workers has developed in West Africa.¹³⁶ The United States, and in this case Maine, do not have the same customs. As such, in the United States there is a much smaller risk of the virus having the capability to substantially harm a population because of its highly infectious nature.

Ebola possesses the capability to substantially harm a population because of panic. The economic repercussions of an Ebola outbreak are potentially vast. In New York City, people panicked after Dr. Spencer returned from West Africa and

134. *Sierra Leone: a traditional healer and a funeral*, WHO, <http://www.who.int/csr/disease/ebola/ebola-6-months/sierra-leone/en/> (last visited Dec. 30, 2014) (tracing over 300 Ebola infections back to a single healer and funeral, because of burial practice custom including the washing, handling, and touching of the body).

135. Pamela Dockins, *WHO: Traditional Burials Hamper Ebola Fight*, VOICE OF AMERICA (Aug. 2, 2014, 11:56 AM), <http://www.voanews.com/content/traditional-burial-practices-hamper-efforts-to-fight-ebola/1970353.html> (explaining that touching the dead, as is the custom, exposes people to the highest viral load possible, but the families often insist on washing the bodies before burial, therefore exposing themselves to the bodily fluids harboring the virus).

136. *Id.* (noting that fearful people and villages have blocked healthcare workers from assisting).

developed symptoms while he was out and about in public.¹³⁷ For instance, the bowling alley that Dr. Spencer visited was shut down for cleaning.¹³⁸ Businesses that have to close down lose money and cause more fear in the public. When people are afraid to interact in public there are vast consequences that can result, but that is unlikely to have been the type of substantial harm to which the statute was referring.

The extreme emergency clause is also for infected individuals, and Hickox did not appear to be infected, as far as anyone could tell. Setting aside that possible problem, however, the Maine statute requires a court order, except under very specific circumstances that did not exist here. First, while there was reasonable cause to believe that Hickox had been exposed to Ebola, given that she freely told everyone that she was returning from nursing Ebola patients in West Africa, the argument can be made that Ebola is not a communicable disease that poses a serious and imminent risk to public health and safety within the United States. It does not spread very easily with the advanced medical care available in the United States, and, furthermore, the risk is not imminent when there are no symptoms because the virus cannot be spread without symptoms.

Second, the restriction that Maine wanted was extremely restrictive. Maine authorities wished to restrict Hickox to her home, without contact with anyone except medical workers, until the twenty-one day period since her last exposure to Ebola had passed. Additionally, they wanted her to submit to active monitoring, with medical personnel coming into her home multiple times a day, to ensure that she was remaining symptom free. The quarantine statute, however, requires that there be no less restrictive alternatives available, such as in the case of *City of Newark*, where the least restrictive method was hospital confinement due to the inability of J.S. to comply with the treatment regimen without direct supervision and intervention.¹³⁹ In Hickox's case, there were less restrictive alternatives, such as the CDC recommendation for returning healthcare workers and anyone else exposed to Ebola. The CDC recommends that returning healthcare workers, and anyone else exposed to Ebola in West Africa, carefully self-monitor for symptoms and report them at first sign.¹⁴⁰ Direct active monitoring is also a less restrictive way to protect the public. Direct active monitoring consists of a public health authority directly watching the exposed individual conduct the temperature check and monitor for symptoms at least once a day. Since both of these options would protect the public almost, if not, as well as, complete quarantine, there were less restrictive options available.

Third, and finally, there must be an imminent risk to Hickox or a significant medical risk of transmission of Ebola. There was zero risk to Hickox by being out in public without symptoms and zero risk of the transmission of Ebola without symptoms. Therefore, there was no reason not to wait to get a court order.

137. *Where Ebola patient Dr. Craig Spencer went in the city: a timeline*, NEW YORK DAILY NEWS, Oct. 25, 2014, <http://www.nydailynews.com/new-york/ebola-patient-dr-craig-spencer-city-timeline-article-1.1986708>.

138. Hunter Stuart, *Brooklyn Bowling Alley 'the Gutter' To Reopen After Ebola Cleanup*, THE HUFFINGTON POST, Oct. 24, 2014, http://www.huffingtonpost.com/2014/10/24/the-gutter-ebola_n_6041678.html.

139. *City of New York*, *supra* note 74, at 469.

140. *Interim U.S. Guidance for Monitoring and Movement of Persons with Potential Ebola Virus Exposure*, CDC, <http://www.cdc.gov/vhf/ebola/exposure/monitoring-and-movement-of-persons-with-exposure.html>, (last updated Oct. 9, 2015).

Getting a court order also has requirements. A hearing before a judge (of the state trial, appeals, or supreme court level) is required, and under a standard of clear and convincing evidence, two prongs must be proved. In the Hickox case, only one prong could be proved. Hickox was exposed to Ebola, which was a disease capable of imminent risk to public health and safety. The second prong of no less restrictive alternatives, was the downfall, because active monitoring, or even direct active monitoring, was a less restrictive alternative that protected the public.

VI. CONCLUSION

Kaci Hickox was properly detained under the New Jersey quarantine statute, because all of the statutory requirements of imminent risk and least restrictive method. The seizure in New Jersey did not violate her Fourth Amendment right to be free from unreasonable searches and seizures, despite the warrantless nature of them, because Hickox and her circumstances met numerous exceptions to the warrant requirement. Had New Jersey continued to hold Hickox after she tested negative for Ebola and went symptom free for twenty-four hours, the conclusion may have been different.

Maine, however, did overstep the bounds when it attempted to place Hickox under a mandatory quarantine until her twenty-one day incubation period was over. None of the exceptions to the Fourth Amendment easily applied once Hickox got to Maine because there was little immediate risk and there existed at least two less restrictive methods of protecting the public health.

Therefore, Judge LaVerdiere made the correct decision when he denied the court order that would have restricted Kaci Hickox to her home until the twenty-one day period had passed. He applied the correct standard of clear and convincing evidence, as required by the Maine statute, and identified the circumstances that needed to be considered, such as the risk to public health and safety, including the infectiousness of Ebola, and less restrictive means of isolation. His requirement that Hickox submit to direct active monitoring was a less restrictive method of protecting the public health that, while possibly unnecessary, served to provide reassurance to the public and the government.