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Bioterrorism Defense: Are State Mandated Compulsory Vaccination Programs an Infringement upon a Citizen's Constitutional Rights

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BIOTERRORISM DEFENSE: ARE STATE MANDATED
 COMPULSORY VACCINATION PROGRAMS AN
 INFRINGEMENT UPON A CITIZEN’S CONSTITUTIONAL
 RIGHTS?

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I. INTRODUCTION

More than two years have passed since the attack on the World Trade Center in New York City on September 11, 2001. This event marked the first time the United States has been under foreign attack on its own soil since the attack on Pearl Harbor on December 7, 1941.¹ A new faceless enemy has surfaced: one who thrives on terror. The war on terrorism may be fought on American soil with biological agents. Shortly after the World Trade Center attack, the biological agent anthrax was

¹MYRON J. SMITH, JR., PEARL HARBOR, 1941, XXII (Myron J. Smith, Jr. ed., Greenwood Press 1991).

discovered in the mail system after several U.S. Postal Employees were diagnosed with, and later died from, the infections.² This bioterrorism threat is not a new problem. It is an easy way for a terrorist group to inflict fear and harm.³ The agents of anthrax and smallpox are the best choice for such a group to deploy since they can and will create fear and deaths among the general populace.⁴ Smallpox is especially dangerous since it can be passed from person to person and spreads quickly.⁵ Even though smallpox was eradicated from the world in 1980,⁶ and the last vaccinations given in the U.S. were in 1972,⁷ the threat is still of great concern. The intelligence community knows that Iraq⁸ and other terrorist nations have been researching and possibly manufacturing biological weapons. Questions needing answers include: 1) When and where will biological weapons be used; and, 2) Is the American public prepared? If biological weapons are used, the only certain preparation lies in vaccination.

There are problems with creating legislation forcing a citizen to conform to a compulsory vaccination program. This type of legislation is a violation of a citizen's right of liberty, as guaranteed by the Fourteenth Amendment, to be free from unwanted physical restraint and refuse life saving medical treatment.^{9,10} The states have the ability to create compulsory vaccination programs under the auspices of

²James M. Hughes, M.D., *Update on the Implications of Anthrax Bioterrorism, in Biological Threats and Terrorism: Assessing the Science and Response Capabilities*, 30 (Stacy L. Knobler & Adel A.F. Mahmoud & Leslie A. Pray eds., National Academy Press 2002).

³Adel Mahmoud, *Summary and Assessment, in Biological Threats and Terrorism: Assessing the Science and Response Capabilities*, 3 (Stacy L. Knobler & Adel A.F. Mahmoud & Leslie A. Pray eds., National Academy Press 2002).

⁴William Frist, *The Political Perspective of the Bioterrorism Threat, in Biological Threats and Terrorism: Assessing the Science and Response Capabilities*, 29 (Stacy L. Knobler & Adel A.F. Mahmoud & Leslie A. Pray eds., National Academy Press 2002).

⁵Adel Mahmoud, *Assessing Our Understanding: Overview, in Biological Threats and Terrorism: Assessing the Science and Response Capabilities*, 44 (Stacy L. Knobler & Adel A.F. Mahmoud & Leslie A. Pray eds., National Academy Press 2002).

⁶Center For Disease Control, *Smallpox Information for the General Public, available at* <http://www.cdc.gov/nip/Smallpox/Public.html> (last modified, June 20, 2002) (The World Health Organization declared that Smallpox was eradicated from the globe in 1980).

⁷D.A. Henderson, *Bioterrorism as a Public Health Threat*, 4 EMERGING INFECTIOUS DISEASES, July-Sept. 1998, available at <http://www.cdc.gov/ncidod/EID/vol4no3/hendrsn.htm> (last modified, Nov. 16, 1998).

⁸*Id.*

⁹*Meyer v. Nebraska*, 262 U.S. 390, 399 (1923) (defining liberty as freedom from physical restraint. Compulsory vaccination program is just that, a physical intrusion upon the body. Any law enacted to force a citizen to conform to physical such an intrusion can be inferred as a restraint).

¹⁰See *Cruzan v. Mo. Dept. of Health*, 497 U.S. 261 (1990); *Mills v. Rogers*, 457 U.S. 291, 302 (1982) (quoting *Roe v. Wade*, 410 U.S. 113, 133 (1973)); *Gray v. Romeo*, 697 F. Supp. 580 (D.R.I. 1988).

police power.¹¹ Police power allows the states to create legislation having the purpose of affecting the public security, welfare, health, justice, and morality.¹²

The agents of anthrax and smallpox threaten the health and welfare of the state citizenry and therefore the state can enact legislation appropriate to offset the possible harm. In order for the enacted legislation to withstand a constitutional challenge, the possible harm has to be a compelling governmental interest of public safety and welfare and narrowly tailored to that goal.¹³ The purpose of this article is to demonstrate that the United States Department of Health and Human Services has the ability to recommend a compulsory vaccination program for citizens, and this program would not be in violation of a person's constitutional right of liberty as guaranteed by the Fourteenth Amendment.

II. DEFINING BIOTERRORISM

The United States Government has defined terrorism in two ways. The Department of Defense defines terrorism as "the calculated use of violence or the threat of violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological."¹⁴ The State Department defines terrorism as the "premeditated, politically motivated violence perpetrated against noncombatant targets by sub national groups or clandestine agents, usually intended to influence an audience."¹⁵

The goals of the terrorist organization "are always political, as extremists driven by religious or ideological beliefs usually seek political power to compel society to conform to their views."¹⁶ Terrorism typically has two elements. First, the relation between the act of generating fear and panic through the uncertainty of attack, the unknown time, place, and weapon that will be utilized.¹⁷ Second, the attack itself; which is designed to cause immense pain and death on the general populace.¹⁸ The terrorists carefully choose their targets for the effect the group is trying to achieve on the populace, which the intent is to produce fear in someone other than the victim.¹⁹

¹¹See BLACK'S LAW DICTIONARY 1178 (7th ed. 1999).

¹²*Id.*

¹³*Adarand v. Pena*, 515 U.S. 200 (1995).

¹⁴The Terrorism Research Center, *The Basics of Terrorism: Part 1: Terrorism Defined*, available at <http://www.terrorism.com/terrorism/bpart1.html> (last visited, Feb. 5, 2003).

¹⁵Senator Jeff Bingham, *National Security: Introduction*, available at http://www.senate.gov/~bingaman/sli2003/Seminars/National_Security/security_introduction.html (last visited, Feb. 5, 2003) (citing *Patterns of Global Terrorism*, U.S. Department of State, XVI, (May 2002)).

¹⁶The Terrorism Research Center, *The Basics of Terrorism: Part 1: Terrorism Defined*, available at <http://www.terrorism.com/terrorism/bpart1.html> (last visited, Feb. 5, 2003).

¹⁷*Id.*

¹⁸H. Clifford Lane et al., *Bioterrorism: A Clear and Present Danger*, NATURE MEDICINE, available at <http://www.niaid.nih.gov/director/lane.html> (last visited, Oct. 24, 2002).

¹⁹*Id.*

Historically terrorists planned their attacks on monarchs or singular objects and strived to avoid affecting “innocent” targets.²⁰ Modern terrorists have abandoned the past beliefs and have dehumanized all persons by believing in an “us versus them” mentality that anyone outside of their group has evil motives.²¹ Traditional methods for achieving their goals have often been through assassinations, arson, hostage taking, bombings, sabotage, etc. . . .²² The modern trend in terrorism includes weapons of mass destruction, otherwise known as nuclear, biological, and chemical weapons.²³ The use of these techniques is determined by the goal the group is intending to achieve, whether it is to “gain attention, collect resources, eliminate a threat, or demonstrate a capability.”²⁴ The United States has been the target of terrorist acts, with the bombing of the World Trade Center, and the actions of domestic terrorists in the destruction of the Federal Building in Oklahoma.²⁵ These actions were intentionally designed to inflict terror on the population in an attempt to send a message that no one is safe at anytime.²⁶

Bioterrorism is not a new concept. The history of biological warfare reaches back to the use of smallpox during the French and Indian Wars (1754-1767).²⁷ The delivery was perpetuated by the distribution of blankets used by smallpox patients to the Native American Indians.²⁸ This example shows the ease with which a biological weapon can be dispersed. Bioterrorism is the introduction of a biological agent within an area to inflict the same fear, harm, and death.²⁹ Biological agents range from a number of deadly viruses, bacteria, or their toxins.³⁰

The subject of bioterrorism has not garnered public scrutiny until recently. Before the attacks in Iraq, Russia, and Japan, there were few articles on the subject.³¹

²⁰*Id.* The innocent group consisted of women, children, and the elderly. Certain terrorist attacks would be abandoned if it appeared that anyone in the “innocent” category would be harmed.

²¹Lane, *supra* note 18.

²²The Terrorism Research Center, *The Basics of Terrorism: Part 3: Terrorism Defined*, at <http://www.terrorism.com/terrorism/bpart3.html> (last visited Feb. 5, 2003).

²³*Id.*

²⁴*Id.*

²⁵Lynn F. Fischer, The Terrorism Research Center: DOD Security Institute, *The Threat of Domestic Terrorism*, at <http://www.terrorism.com/terrorism/DomesticThreat.shtml> (last visited Mar. 25, 2003).

²⁶Lane, et al., *supra* note 18, at 1271.

²⁷Donald A. Henderson et al., *Smallpox as a Biological Weapon*, 281 JAMA 2127, 2128 (1999).

²⁸*Id.*

²⁹Janet Heinrich, U.S. General Accounting Office: *Bioterrorism Coordination and Preparedness*, H.R. DOC. NO. GAO-02-129T, 1 n.1 (2001).

³⁰H.R. DOC. NO. GAO-02-129T.

³¹D.A. Henderson, *Bioterrorism as a Public Health Threat*, 4 EMERGING INFECTIOUS DISEASES, July-Sept. 1998, at 488, available at <http://www.cdc.gov/ncidod/EID/vol4no3/hendrsn.htm> (last modified, Nov. 16, 1998).

There were four points of view on the use of bioterrorism according to Professor Henderson of John Hopkins University. The first view followed the principle believing that since the weapons had been seldom deployed, they would not be utilized.³² Second, the use of biological weapons is morally repugnant and no one would even think of their utilization.³³ Third, development and dispersion is so difficult to develop it would only be available to industrialized nations with sophisticated scientific laboratories.³⁴

Finally, the destructive capabilities would be likened to “nuclear winter” and their use would be unthinkable.³⁵ These viewpoints have now been debunked.³⁶ Bioterrorism tactics are part of our current reality and future attacks are more likely than ever.³⁷ Terrorists do not care about morality when they are planning attacks. Some have been funded by some of the most affluent extremists and countries.³⁸ The recipes for making and dispersing these weapons are easily available on the internet.³⁹ Stating that the weapons will not be used is pure fantasy. Biological weapons are easy to make and are becoming more and more widely available.

A disconcerting problem with the use of biological agents is their potential for quiet deployment.⁴⁰ Essentially, there will be no bombs exploding or immediate illness. Most of these agents have incubation periods ranging from a few days to months and can be difficult to diagnose. Additionally, local hospitals and doctors lack the training and experience to identify these agents.⁴¹ The most likely agents to

³²*Id.*

³³*Id.*

³⁴Henderson, *supra* note 31.

³⁵*Id.*

³⁶*Id.*

³⁷*Id.* at 489.

³⁸Henderson, *supra* note 31.

³⁹*Id.* at 489.

⁴⁰Pete Du Pont, Editorial, *The Bugs of War*, THE WALL STREET JOURNAL, Nov. 20, 2002, available at <http://www.opinionjournal.com/columnists/pdupont/?id=110002648> (last visited Nov. 20, 2002). Discussing the ability for the easy deployment of the biological weapons through the transit system with out detection, the ease of obtaining the agents themselves and their apparent ease of dispersion in the populace.

⁴¹Barbara Loe Fisher, Editorial, *Smallpox and Forced Vaccination: What Every American Needs to Know*, NATIONAL VACCINE INFORMATION CENTER, Winter 2002, at <http://www.909shot.com/Newsletters/spsmallpox.htm> (last visited Jan. 13, 2003), quoting, ISSELBACHER KJ & BRAUNWALD E et al., HARRISON'S PRINCIPLES OF INTERNAL MEDICINE, (Isselbacher KJ & Braunwald E et al. eds., McGraw Hill) (1994), BRAUNWALD E & ISSELBACHER KJ, HARRISON'S PRINCIPLES OF INTERNAL MEDICINE, (Isselbacher KJ & Braunwald E et al eds., McGraw Hill) (1987), and WORLD HEALTH ORGANIZATION, *SMALLPOX, WEEKLY EPIDEMIOLOGICAL RECORD* 76 (2001). The following diseases have been misdiagnosed for smallpox: chickenpox, eczema vaccinatum, eczema herpeticum, rickettsialpox, drug reactions, contact dermatitis, erythema multiforme, meningococemia, typhus, hemorrhagic fevers, human monkeypox, and the vaccinia virus infections. These diseases are virtually indistinguishable from smallpox for the first two to three days of infection. The only true way to diagnose is through a lab culture.

be selected for use by a bioterrorist are anthrax and smallpox. Anthrax is naturally occurring and easily weaponized, while smallpox can spread quickly from person to person and has a high death rate.⁴² In order to further understand why these agents are the most likely to be utilized, the following must be discussed: the dispersion capabilities, epidemiology, microbiology, and the effects on the individuals and available cures.

A. Anthrax

Anthrax (*Bacillus anthracis*) is a naturally occurring disease found globally.⁴³ Anthrax spores germinate in environments rich in amino acids, nucleosides, and glucose. These nutrients are readily found in the blood and tissues of an animal or human host.⁴⁴ Spores will only form after all of the nutrients have been taxed and the cells are exposed to air.⁴⁵ The following three forms of anthrax infection occur in humans: cutaneous, inhalation, and gastrointestinal.⁴⁶

Cutaneous anthrax is the most common form and is caused by exposure to anthrax-infected animals.⁴⁷ Prior to the anthrax cases in 2001, the United States only had 224 cases reported between 1944 and 1994, mostly in rural agricultural areas.⁴⁸ The infections in 2001 are vastly different, however, as the disease was not transferred by animal exposure but as a powder sent through the mail.⁴⁹ The least common anthrax infection is gastrointestinal anthrax, which is caused by the ingestion of infected meat.⁵⁰ The most alarming of the three forms is inhalation

⁴²Donald A. Henderson et al., *Smallpox as a Biological Weapon*, 281 JAMA 2127, 2127 (1999); Thomas V. Ingelsby et al., *Anthrax as a Biological Weapon*, 281 JAMA 1735, 1736 (1999).

⁴³Thomas V. Ingelsby et al., *Anthrax as a Biological Weapon*, 281 JAMA 1735, 1736 (1999).

⁴⁴*Id.* at 1737.

⁴⁵*Id.*, quoting, Dragon DC & Rennie RP, *The Ecology of Anthrax Spores*, 36 CAN VET J. 295-301 (1995); Titball RW et al., *The Monitoring and Detection of Bacillus Anthracis in the Environment*, 70 J APPL BACTERIOL. 9S-18S (1991).

⁴⁶Ingelsby, *supra* note 43.

⁴⁷Ingelsby, *supra* note 43, quoting, Centers for Disease Control and Prevention, *Summary of Notifiable Diseases, 1945-1994*, 43 MMWR MORB MORTAL WKLY REP. 70-78 (1994).

⁴⁸Ingelsby, *supra* note 43, at 1737, quoting, Myenye KE et al, *Factors Associated with Human Anthrax Outbreak in the Chikupa and Ngandu Villages of Murewa District in Mashonaland East Province, Zimbabwe*, 42 CENT. AFR. J. MED. 312-315 (1996).

⁴⁹Lauran Neergaard, *Postmaster: Anthrax Threatens Mail*, *The Washington Post*, Oct. 24, 2001, available at http://www.washingtonpost.com/wp-srv/aponline/20011024/aponline090115_002.html (last visited Mar. 25, 2003).

⁵⁰Ingelsby, *supra* note 43, at 1736-37, quoting, Ross JM., *The Pathogenesis of Anthrax Following the Administration of Spores by the Respiratory Route*, 73 J. PATHOL BACTERIOL 485-495 (1966) The last cases of this type of infection were reported in Africa and Asia.

anthrax, which has not been reported in the United States since 1978.⁵¹ Inhalation is the deadliest of the three forms and is most likely to be developed as a biological weapon.⁵² Inhalation anthrax begins through the ingestion of the aerosolized particles, which are absorbed by the lymphatic cell membranes.⁵³ The infection does not occur instantly, but may take up to several months to germinate.⁵⁴ Once germination has occurred, the disease progresses rapidly with the bacteria releasing toxins that cause hemorrhage, edema, and necrosis.⁵⁵ The amount of spores required to cause the infection is anywhere from 2,500 to 55,000.⁵⁶

The inhalation infections discovered in the United States had two stages. In the first stage, patients developed non-specific symptoms that included fever, dyspnea, cough, headache, vomiting, chills, weakness, abdominal pain, and chest pain.⁵⁷ The second stage has a rapid onset of fever, dyspnea, diaphoresis, shock, massive lymphadenopathy and expansion of the mediastinum.⁵⁸ In addition, signs of hemorrhagic meningitis with concomitant meningismus, delirium, and obtundation were also present.⁵⁹ Finally, cyanosis and hypotension begin and death occurs within

⁵¹Ingelsby, *supra* note 43, at 1737, *quoting*, Brachman PS, *Inhalation Anthrax*, 353 ANN. NY ACAD SCI. 83-93 (1980); Centers for Disease Control and Prevention, *Summary of Notifiable Diseases, 1945-1994*, 43 MMWR MORB MORTAL WKLY REP. 70-78 (1994).

⁵²Ingelsby, *supra* note 43, at 1737

⁵³Ingelsby, *supra* note 43, at 1737, *quoting*, Friedlander A et al, Postexposure Prophylaxis Against Experimental Inhalation Anthrax, 167 J INFECT DIS. 1239-1242 (1993); Lincoln RE et al, Role of the Lymphatics in the Pathogenesis of Anthrax, 115 J INFECT DIS. 481-494 (1965); Ross JM., The Pathogenesis of Anthrax Following the Administration of Spores by the Respiratory Route, 73 J PATHOL BACTERIOL 485-495 (1966).

⁵⁴Ingelsby, *supra* note 43, at 1738.

⁵⁵Ingelsby, *supra* note 43, at 1738, *quoting*, Friedlander A., *ANTHRAX*, in TEXTBOOK OF MILITARY MEDICINE: MEDICAL ASPECTS OF CHEMICAL AND BIOLOGICAL WARFARE, 467-478 (Zajtchuk R & Bellemy RF eds., 1997); Siris Anthana T. et al, *Outbreak of Oral-Pharyngeal Anthrax*, 33 AM J TROP MED HYG 144-150 (1984).

⁵⁶Ingelsby, *supra* note 43, at 1738, *quoting*, Defense Intelligence Agency, *Soviet Biological Warfare Threat*, DST DOC NO. 161OF-057-86 (1986).

⁵⁷Ingelsby, *supra* note 43, at 1738, *quoting*, Meselson M. et al, *The Sverdlovsk Anthrax Outbreak of 1979*, 266 SCIENCE 1202-1208 (1994); Brachman PS., *Inhalation Anthrax*, 353 ANN NY ACAD SCI. 83-93 (1980).

⁵⁸Ingelsby, *supra* note 43, at 1738, *quoting*, Vessel K et al, *Radiologic Changes in Inhalation Anthrax*, 26 CLIN RADIOL 471-74 (1975); Albrink WS et al, *Human Inhalation Anthrax*, 36 AM J PATHOL 457-71 (1960).

⁵⁹Ingelsby, *supra* note 43, at 1738, *quoting*, Vessel K et al, *Radiologic Changes in Inhalation Anthrax*, 26 CLIN RADIOL 471-74 (1975).

hours.⁶⁰ On average, the length of time between the onset of symptoms and death is a mere three days.⁶¹

The only known remedies for an anthrax infection are antibiotics and vaccination. The vaccine itself is produced by Bioport Corporation of Lansing, Michigan.⁶² The vaccination process is delivered in a six-dose series and has been mandated for all U.S. military members.⁶³ There have been no serious adverse side effects related to the vaccine.⁶⁴ The U.S. version of the vaccine is an inactivated cell-free formula, whereas the rest of the world uses a live attenuated vaccine.⁶⁵ It should be noted the Western world considers live attenuated vaccines not suitable for human use.⁶⁶ However, the vaccine is in limited supply, therefore distribution to the general population is not recommended with the exception of key personnel.⁶⁷ On the other hand, there are wide varieties of antibiotics available for use upon diagnosis. The antibiotic treatment must begin within a short time after diagnosis. Waiting even a few hours lessens the chance of survival.⁶⁸

The interest in deploying anthrax as a weapon is simple. Anthrax survives as a spore with actual physical characteristics, which can be delivered through simple means, such as sending it through the mail system. The main problem is that the spores must be aerosolized or airborne in order to be inhaled.⁶⁹ The biggest challenge is detection of the source.⁷⁰ Since symptoms do not appear immediately, the exposure could have originated days or even months prior to the first infection.⁷¹

⁶⁰Ingelsby, *supra* note 43, at 1739, *quoting*, Lew D, *BACILLUS ANTHRACIS (ANTHRAX)*, IN PRINCIPLES AND PRACTICES OF INFECTIOUS DISEASE, 1885-1889 (Mandell GL & Bennet JE & Dolin R. eds., Churchill Livingstone Inc. 1995); Brachman PS., *Inhalation Anthrax*, 353 ANN NY ACAD SCI. 83-93 (1980); Franz DR et al, *Clinical Recognition and Management of Patients Exposed to Biological Warfare Agents*, 278 JAMA 399-411 (1997).

⁶¹Ingelsby, *supra* note 43, at 1740.

⁶²Ingelsby, *supra* note 43, at 1741, *quoting*, U.S. Dept. of Defense, *Anthrax Vaccine, Military Use in Persian Gulf Region*, (press release Sept. 8, 1998).

⁶³Ingelsby, *supra* note 43, at 1741.

⁶⁴Ingelsby, *supra* note 43, at 1741, *quoting*, Ivins BE et al, Efficacy of Standard Human Anthrax Vaccine Against Baccillus Anthracis Aerosol Spore Challenge in Rhesus Monkeys, 87 SALISBURY MED BULL 125-26 (1996).

⁶⁵Ingelsby, *supra* note 43, at 1742, *quoting*, Turnbull PC, *Anthrax Vaccines: Past, Present and Future*, 9 VACCINE 533-39 (1991).

⁶⁶Ingelsby, *supra* note 43, at 1742.

⁶⁷*Id.*

⁶⁸Ingelsby, *supra* note 43, at 1742, *quoting*, Barnes JM, *Penicillin and B Anthracis*, 194 J PATHOL BACTERIOL 113-125 (1947); LINCOLN RE ET AL, *SUCCESSFUL TREATMENT OF MONKEYS FOR SEPTICEMIC ANTHRAX*, in ANTIMICROBIAL AGENTS AND CHEMOTHERAPY, 759-763 (American Society for Microbiology 1965).

⁶⁹Ingelsby, *supra* note 43, at 1743.

⁷⁰*Id.*

⁷¹*Id.*; *quoting*, Guillermin J., *Anthrax: The Investigation of a Lethal Outbreak*, (University of California Press at Berkley).

Anthrax has one benefit, on the receiving end, over other biological weapons: It is not patient-to-patient transmittable.⁷² The infection is based on a contagion with physical characteristics, not a virus. Direct contact with the source is necessary.

Anthrax is a viable and dangerous biological weapon. One hundred million doses are derived from one gram of anthrax material.⁷³ This small amount of material is easy to produce and stable enough as a dry powder which can be stored for an infinite period.⁷⁴ The use of anthrax on a civilian population has been compared to the destructive power of a hydrogen bomb.⁷⁵ Even though the onset of disease may not be as instantaneous as smallpox, its difficulty of detection and rapid onset of death after symptoms begin make it one of the prime choices for a bioterrorist's arsenal.

B. Smallpox

Smallpox (*variola major* and *variola minor*) was once a worldwide problem and the majority of the population contracted the disease at one point or another.⁷⁶ There has not been a case of smallpox anywhere in the world since 1977, and the United States stopped requiring vaccination in 1972.⁷⁷ The virus only lives and thrives in the human body. It is transmittable from human to human, not by animals or insects.⁷⁸ Infection begins after the implantation on the oropharyngeal.⁷⁹ The virus multiplies in the lymph nodes, and asymptomatic viremia develops on the third or fourth day.⁸⁰ The virus then travels and multiplies in the spleen, bone marrow, and lymph nodes.⁸¹ After twelve to fourteen days, the infected person begins suffering

⁷²Ingelsby, *supra* note 43, at 1742, *quoting*, Meselson M et al, *The Sverdlovsk Anthrax Outbreak of 1979*, 266 SCIENCE 1202-8 (1994); Pile JC et al, *Anthrax as a Potential Biological Warfare Agent*, 158 ARCH INTERN MED 429-34 (1998).

⁷³Terrorism Files.org, *Anthrax as a Biological Warfare Agent*, available at http://www.terrorismfiles.org/weapons/Anthrax_biological_warfare_agent.html (last visited, Sept. 22, 2002) The use of this small amount of biological material is 100,000 times deadlier than the deadliest chemical agents.

⁷⁴*Id.*

⁷⁵Ingelsby, *supra* note 43, at 1735, *quoting*, Office of Technology Assessment, *Proliferation of Weapons of Mass Destruction*, S. DOC NO. OTA-ISC-559 (1993).

⁷⁶Donald A. Henderson et al, *Smallpox as a Biological Weapon*, 281:22 JAMA 2127, 2129 (1999).

⁷⁷Anthony S. Fauci, M.D., *Bioterrorism Preparedness: NIH Smallpox Research Efforts*, available at <http://www.hhs.gov/asl/testify/t011102b.htm> (last visited, Oct. 24, 2002).

⁷⁸Center for Disease Control and Prevention, *Smallpox Information for the General Public*, available at <http://www.cdc.gov/nip/Smallpox/Public.html> (last modified, June 20, 2002).

⁷⁹*Id.*; *quoting*, Fenner F. et al, *Smallpox and its Eradication*, 1460 (World Health Organization 1988).

⁸⁰*Id.*

⁸¹*Id.*

from a high fever, malaise, and prostration with a headache and backache.⁸² A patient is highly contagious at this stage.⁸³ The virus forms lesions in the mouth, which ulcerate quickly and release large amounts of the virus into the saliva.⁸⁴ The next stage is a rash and bumps (similar to chicken pox), which spread all over the body at the same rate. At this time, the infected person begins to feel better.⁸⁵

There are two forms of smallpox, and both are difficult to diagnose. Hemorrhagic smallpox has a shorter incubation period with the same symptoms as previously mentioned. The illness progresses rapidly with high fever, head, back, and abdominal pain.⁸⁶ The following developments occur: dusky erythema, followed by petechia and frank hemorrhages turn into skin and mucous membranes.⁸⁷ Death occurs after the fifth or sixth day of the rash.⁸⁸ Hemorrhagic smallpox has a high death rate.⁸⁹ The malignant form has the same type of symptoms, but they do not progress as rapidly.⁹⁰ The lesions never enter into the postural stage and remain soft, flattened, and velvety to the touch.⁹¹ This form does not have nearly the morbidity rate that of hemorrhagic smallpox, but is frequently fatal.⁹²

A cure for smallpox does not exist. The preventative measure is the vaccine, but there are limited amounts in existence.⁹³ Supportive therapy coupled with antibiotics for any secondary infection is the only available treatment.⁹⁴ The smallpox vaccine has been noted to be effective if administered within four days of first exposure to prevent or lessen the infection and or the possibility of death.⁹⁵ There has been some

⁸²Center for Disease Control and Prevention, *supra* note 78, *quoting*, Fenner F. et al, *Smallpox and its Eradication*, 1460 (World Health Organization 1988).

⁸³Center for Disease Control and Prevention, *supra* note 78.

⁸⁴Henderson, *supra* note 76, at 2130, *quoting*, Sarkar JK et al, *Virus Excretion in Smallpox, 2: Excretion in the Throat of Household Contacts*, 48 BULL WORLD HEALTH ORGAN. 523-527 (1973).

⁸⁵Center for Disease Control and Prevention, *supra* note 78.

⁸⁶Henderson, *supra* note 76, at 2131.

⁸⁷*Id.*

⁸⁸*Id.*; *quoting*, RAO AR, *SMALLPOX*, (Kothari Book Depot 1972).

⁸⁹Henderson, *supra* note 76, at 2131.

⁹⁰*Id.*

⁹¹*Id.*

⁹²*Id.*

⁹³Fauci, *supra* note 77.

⁹⁴Henderson, *supra* note 76, at 2133, *quoting*, Lalezari JP et al, *Intravenous Cidofovir for Peripheral Cytomegalovirus Retinitis in Patients with Aids: A Randomized, Controlled Trial*, 126 ANN INTERN MED. 257-63 (1997).

⁹⁵Henderson, *supra* note 76, at 2134, *quoting*, DIXON CW, *SMALLPOX*, 1460 (J & A Churchill Ltd 1962).

breakthrough with the use of cidofivir, which is a nucleoside analog DNA polymerase inhibitor, if administered within two days of exposure.⁹⁶

The deployment of smallpox is not difficult, as the virus can be aerosolized. Even if only a few cases develop, then the terrorist group has obtained its goal. Those infected can rapidly spread the highly communicable disease, and the infected “zone” can expand by a factor of 10 to 20 times with each generation of new cases.⁹⁷ This is especially dangerous as the incubation period is 10 to 14 days after initial infection. The U.S. used smallpox as a weapon through dispersing blankets used by smallpox patients to the American Indians.⁹⁸ This disease is easily dispersed in a large population. Once dispersed, a large amount of the population is at risk of infection, causing a two-fold reaction. First, many would likely endure great pain and possible death. Second, the nation’s economy would be affected by a resultant loss of productivity.

III. DEFENSES

There are very few defenses to bioterrorism. The agents of anthrax and smallpox are largely undetectable and can be transported freely throughout the United States. The only way to defend against an attack using these agents is through vaccination, a method which has inherent problems ranging from side effects due to the inoculation to the logistical issues of providing the vaccine to the public in a large-scale program.

A. Vaccinations

The best way to protect against bioterrorism is to vaccinate against those agents posing the biggest threat. Since prevention is better than the cure in most situations, vaccines have been found to be an inexpensive and effective way to avert infection.⁹⁹ The ability of vaccination programs to ward off disease has been proven through their implementation on a global scale with eradication of the smallpox virus in 1977.¹⁰⁰ Vaccines save around five million lives each year, according to Dr. Sir Gustav Nossal.¹⁰¹ Even though vaccines save lives, some people are not protected or may be injured by the side effects.¹⁰²

⁹⁶*Id.* There are problems with the use of this drug since it is administered intravenously and its side effects include renal toxicity.

⁹⁷*Id.*, quoting, Fenner F. et al, *Smallpox and its Eradication*, 1460 (World Health Organization 1988); Wehrle PF et al, *An Airborne Outbreak of Smallpox in a German Hospital and its Significance with Respect to Other Recent Outbreaks in Europe*, 43 *BULL. WORLD HEALTH ORG.* 669-679 (1970); O’TOOLE T., *Smallpox: A Case History*, (in press).

⁹⁸Henderson, *supra* note 27.

⁹⁹Sir Gustav Nossal, MD Phd, *Viewpoint on the Biotechnology Revolution*, 113 *PUBLIC HEALTH REP.* 123 (1998).

¹⁰⁰*Id.*

¹⁰¹*Id.*

¹⁰²James O. Mason, MD, DR.Ph, *Vaccine Supply and Liability*, 101 *PUBLIC HEALTH REP.* 229 (1986).

Another problem with vaccination, especially in an outbreak situation, is the logistical ability to administer the vaccine to the populace. Dr. Michael Osterholm recently wrote a report concerning bioterrorism and his experience with vaccinating a large number of people during an outbreak of *Neisseria meningitides* in Mankato, Minnesota, over Super Bowl weekend in 1995.¹⁰³ In his essay, he describes vaccinating 1,000 people in 35 minutes and 3,300 by the end of the week.¹⁰⁴ At the end of the week, he believed things were slowing down when he received a phone call concerning two students. The students were vaccinated a day earlier; yet they still contracted the disease, and died.¹⁰⁵

If the outbreak of the disease was not enough, secondary and tertiary problems became apparent. The media misrepresented information to the public, parents kept students home under the misconception of how the disease spread, and the Health Care Providers were overworked.¹⁰⁶ The tertiary problems included the lines for the vaccination clinic itself, panic, communication delays, vaccine supply, lack of space in the hospital, staffing, crowd control, and public relations demands.¹⁰⁷ Dr. Osterholm stated the biggest concern is the planning within in the medical community.¹⁰⁸ He stated the medical community was not available to the populace due to being "too busy."¹⁰⁹ When an outbreak occurs in their backyard, however, the medical community needs to be visible.¹¹⁰ Dr. Osterholm stated that although he had one of the best medical response systems to work with in the country,¹¹¹ he does not know how an outbreak of a biological agent such as anthrax or smallpox could be contained and vaccinated within a reasonable amount of time.¹¹²

The issue with vaccinations for smallpox and anthrax is not just how to implement a large-scale program, but how the vaccines are currently limited in their availability. The United States presently has 15.4 million doses of the smallpox (Dryvax) vaccine available.¹¹³ A contract has been issued for an additional 210 million doses.¹¹⁴ Problems associated with this particular vaccine vary. The first dose provides for five to ten years of protection and a secondary dose extends the

¹⁰³Michael T. Osterholm, PhD., MPH, *How to Vaccinate 30,000 People in Three Days: Realities of Outbreak Management*, 116 PUBLIC HEALTH REP. 74 (2001).

¹⁰⁴*Id.* at 75.

¹⁰⁵*Id.*

¹⁰⁶*Id.* at 76.

¹⁰⁷*Id.* at 76-78.

¹⁰⁸Osterholm, *supra* note 103.

¹⁰⁹*Id.*

¹¹⁰*Id.*

¹¹¹*Id.*

¹¹²*Id.*

¹¹³Center for Disease Control and Prevention, *Smallpox Information for the General Public*, available at <http://www.cdc.gov/nip/Smallpox/Public.html> (last modified, June 20, 2002).

¹¹⁴*Id.*

protection for even longer.¹¹⁵ Some persons should not receive the vaccination at all if they have not been exposed to smallpox. That population includes: pregnant women, those with certain skin conditions such as eczema, and those with weakened immune systems.¹¹⁶ In an emergency response to attack, all persons, regardless of any condition, should be vaccinated.¹¹⁷ Vaccinia Immune Globulin or VIG can be administered in order to minimize the complications to the special groups.¹¹⁸ One person in 10,000 will have side effects serious enough to require a doctor's care.¹¹⁹ Estimates have concluded if everyone in the U.S. were to receive the vaccination 350 to 500 people would likely die as a result of the vaccine.¹²⁰

The anthrax vaccine is in limited supply and mandated for all active and reserve military personnel.¹²¹ Additionally, it will be years before enough vaccine could be produced for civilian use.¹²² Since the cost of the vaccine is prohibitive and the likeness of attack is not foreseeable, its use is only warranted after the release of the agent in the population.¹²³ The vaccine is delivered in a six dose series.¹²⁴ The vaccine provides virtually complete protection from the date of inoculation through about week 38, and it is 88% effective at 100 weeks, according to the tests performed on primates.¹²⁵ There are no known serious side effects associated with the vaccine.¹²⁶

B. Who Mandates Vaccinations?

Since the constitution did not grant the power to enact health regulations to the federal government, this power has been left to the states.¹²⁷ However, if the state regulations appear to be inadequate in dealing with an outbreak,¹²⁸ the federal government has reserved the right to enact health regulations under the Public Health Services Act.¹²⁹ This act falls under the Congressional Auspices by virtue of the

¹¹⁵*Id.*

¹¹⁶*Id.*

¹¹⁷*Id.*

¹¹⁸Henderson, *supra* note 76.

¹¹⁹*Id.*

¹²⁰Center for Disease Control and Prevention, *supra* note 113.

¹²¹Ingelsby, *supra* note 43, at 1740.

¹²²*Id.*

¹²³*Id.*

¹²⁴*Id.*

¹²⁵Ingelsby, *supra* note 43, at 1740.

¹²⁶*Id.*

¹²⁷Teri Flowers, *Quarantining the Noncompliant TB Patient: Catching the "Red Snapper,"* 28 J. HEALTH LAW 95, 101 (1995).

¹²⁸*Id.*

¹²⁹42 U.S.C.A. § 264 (West 1982)

Commerce Clause. However, Congress is only allowed to enact the legislation if it appears a disease or infectious agents cross the state or national borders.¹³⁰ Another theory allowing the federal government to respond is the release of a biological agent on the United States populace. This would be considered an attack and therefore a National Security concern since biological weapons are covered under the Defense Against Weapons of Mass Destruction Act.¹³¹ This Act gives the President the ability to take action and provide enhanced support to local and state emergency response agencies to prevent and respond to terrorist incidents.¹³²

In the absence of federal action the power to initiate a mandatory vaccination program is vested in state legislature which in turn, creates the Boards of Health at the state level. The Boards of Health have the implied powers to enact and enforce regulations for the public health and welfare.¹³³ The States are empowered power to enact such laws through its "police power."¹³⁴ Given the current state of mandatory vaccination law or regulation, it is up to the State Boards of Health to implement a distribution system. If the regulation fails to be adequate, the federal government can step in and provide the needed support.

C. Public Policy

Public policy plays a large role in the health and welfare of each person in society. As the needs of society change, the policies regarding public health initiatives have to follow suit. Public health encompasses everything in life from clean water and air to the bike helmet a child wears.¹³⁵ Through public health initiatives, the life expectancy of the average person has doubled. In 1900, the average life expectancy was 47.3 years.¹³⁶ Today people are living 78.1 years on average.¹³⁷ "Public health initiatives include campaigns to get appropriate health screenings and preventative care, immunize our children and high-risk adults, practice safe sex, avoid tobacco and drugs, and many other efforts that affect us and our health."¹³⁸ The changes in public health policies have to be a reflection of the attitudes and needs of society in general.

¹³⁰*Id.* at 101 n.61.

¹³¹Defense Against Weapons of Mass Destruction Act, 14 U.S.C. §§ 1401-1455 (1996).

¹³²Wendy Mariner, *The Wrong Response*, 24 NATIONAL LAW JOURNAL, Dec. 17, 2001, at A20.

¹³³Paula Mindes, Note, Tuberculosis Quarantine: A Review of the Legal Issues in Ohio and Other States, 10 J.L. & HEALTH 403, 422-23 (1996).

¹³⁴*Id.* at 422, quoting, *Turner v. Toledo*, 8 Ohio Cir. Dec. 196, 199 (Ohio Ct. App. 1898) The ability of the state legislature to create the Board of Health, which through their implied powers, can enforce quarantine of persons who are either infected with or exposed to infectious diseases.

¹³⁵Garry Boulard, *Taking the Pulse of Public Health*, STATE LEGISLATURES, Jan. 1, 2001, at 24, available at ISSN: 0147-6041 or IAC-ACC-NO: 69414040.

¹³⁶*Id.*

¹³⁷*Id.*

¹³⁸*Id.*

The 1800's established a paradigm shift in health care regulations with creation of the first state boards of health.¹³⁹ The first situations the new boards of health dealt with were the epidemics of cholera, smallpox, yellow fever, and typhoid.¹⁴⁰ Then another shift occurred in the 1930's when regulations were enacted to enforce "quarantines for families with diphtheria and smallpox, institutionalization for tuberculosis victims, and mass control programs restricting travel and public meetings. . . ."¹⁴¹ The problem with these regulations in today's society places the boards of health at odds with the civil liberties and rights of each citizen.¹⁴²

The subject of bioterrorism is on the mind of every citizen in the United States today. The U.S. Government is attempting to find ways to detect possible biological weapons and prevent their deployment and dispersal. The only way a citizen can affect a possible defense is to become vaccinated for the agents that may be utilized. The debate rages on as to whether or not to offer smallpox vaccinations to those who want to be vaccinated. A current poll conducted in October of 2002 found 65% of 1,002 adults would be willing to receive the smallpox vaccine.¹⁴³ The numbers are up from a similar poll given in May of 2002, which indicated 59% of adults would be willing to receive the smallpox vaccine.¹⁴⁴ In addition to these numbers, the perception of preparedness of the local hospitals was down from 70% to 57%.¹⁴⁵ Even with the public perception that the health industry is lacking the capability of dealing with a bioterrorist attack, there are still those in the health industry who state that vaccination is not the answer at this time.¹⁴⁶ United States Senator Bill Frist (R-TN), a physician who will soon be the chair of the Senate's public health subcommittee, stated, "[a] vaccinated population, even a partially vaccinated population, is a protected population."¹⁴⁷ As of December 12, 2002, President George W. Bush has "decided to make the smallpox vaccine available to Americans on a voluntary basis to guard against a possible biological warfare attack."¹⁴⁸ As time

¹³⁹Boulard, *supra* note 135.

¹⁴⁰*Id.*

¹⁴¹*Id.*

¹⁴²*Id.*

¹⁴³*Smallpox Has U.S. Scared*, CBS, Dec. 11, 2002, available at <http://www.cbsnews.com/stories/2002/12/12/health/main532776.shtml> (last visited, Nov. 20, 2003).

¹⁴⁴*Id.*

¹⁴⁵Most in US OK with Smallpox Shot, but Unease Grows, Reuters Health, Dec. 11, 2002, available at <http://12.31.115.HealthNews/reuters/Newsstory1211200231.htm> (last visited, Nov. 20, 2003).

¹⁴⁶*Id.*

¹⁴⁷*Id.* The acting assistant secretary in the office of public health emergency preparedness at the U.S. Department of Health and Human Services, Dr. Jerome Hauer, thought "the numbers [of people accepting the vaccine] [were] too high." Dr. Hauer is reserved about releasing the vaccine to the public. He believes the populace needs to be educated concerning the side effects of the vaccine before it is released.

¹⁴⁸*Bush backs voluntary smallpox shots in U.S.*, REUTERS, Dec. 12, 2002, available at <http://12.31.13.115/HealthNews/reuters/NewsStory12122200219.htm> (last visited, Nov. 20, 2003).

passes, health regulations and policies are going to be created in order to follow with the current trends and interests of the general populace.

IV. FOURTEENTH AMENDMENT

A. Liberty

The United States Constitution grants a great deal of power to the government but places certain restrictions upon those powers. These restrictions are enumerated in the United States Constitution and the Bill of Rights, which restricts the federal government. The Fourteenth Amendment enforces the Bill of Rights restrictions on the states. Such a restriction within the Fourteenth Amendment is an individual citizen's right of liberty. This clause states:

[n]o State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.¹⁴⁹

Liberty is defined as "freedom from arbitrary or undue external restraint . . . by a government."¹⁵⁰ The government must show the regulation has a reasonable relation to the goal and is narrowly tailored to that goal.¹⁵¹

The U.S. Supreme Court in *Meyer v. Nebraska* defined liberty as the freedom from physical restraint, the right to contract, engage in occupation, to obtain an education, marriage, worship one's religion, and any common law readily accepted in the pursuit of freedom.¹⁵² The rights described in *Meyer* are fundamental principles guaranteed to each person within these United States.¹⁵³ To infringe upon these rights, the government must show a reasonable relation between the governmental interest and the regulation.¹⁵⁴ Therefore, the state legislature must show a proper use of the police power in order to avoid violating the rights granted by the U.S. Constitution.¹⁵⁵

B. Right of Privacy

The right of privacy is not specifically mentioned in the United States Constitution, but it has been held by the United States Supreme Court to be

¹⁴⁹U.S. CONST. amend. XIV, § 1.

¹⁵⁰Black's Law Dictionary 930 (7th ed. 1999).

¹⁵¹*Meyer v. Nebraska*, 262 U.S. 390, 400 (1923).

¹⁵²*Id.* at 399. "[N]ot merely freedom from bodily restraint but also the right of the individual to contract, to engage in any of the common occupations of life, to acquire useful knowledge, to marry, establish a home and bring up children, to worship God according to the dictates of his own conscience, and generally to enjoy those privileges long recognized at common law as essential to the orderly pursuit of happiness by free men."

¹⁵³*Id.* at 400.

¹⁵⁴*Id.* at 399-400.

¹⁵⁵*Id.* at 400, 403-04.

implicitly guaranteed by the Constitution as an aspect of “liberty” protected by the Due Process clause of the Fourteenth Amendment.¹⁵⁶ The U.S. Supreme Court stated in *Griswold v. Connecticut* that privacy is one of the “penumbral” rights formed by the “emanations” of the express guarantees of the Bill of Rights.¹⁵⁷ The enumerated rights included in privacy are: marriage;¹⁵⁸ child rearing;¹⁵⁹ procreation;¹⁶⁰ contraception;¹⁶¹ abortion;¹⁶² private sexual activity;¹⁶³ keeping extended family together;¹⁶⁴ and the right to refuse lifesaving medical treatment.¹⁶⁵ The Court stated in *Eisenstadt v. Baird*, “[i]f the right of privacy means anything, it is the right of the individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person. . . .”¹⁶⁶ The right of privacy allows a person to be free from governmental intrusions unless the legislation enacted is narrowly tailored to a specific state interest. With reference to the applicability for the purposes of mandatory vaccination programs, a state can lawfully enforce the program through its police power function and avoid a constitutional entanglement so long as the legislation deals with a health or welfare related interest.¹⁶⁷

C. State Police Power

The state’s police power is plenary in function and is a right of the state as guaranteed by the Tenth Amendment.¹⁶⁸ The power belongs to the state legislature and allows such laws to be enacted that affect the public security, welfare, health,

¹⁵⁶Carey v. Population Serv. Int’l, 431 U.S. 678, 684 (1977), citing, *Roe v. Wade*, 410 U.S. 113, 152 (1973).

¹⁵⁷*Griswold v. Connecticut*, 381 U.S. 479, 484-85 (1965).

¹⁵⁸*Roe*, 410 U.S. at 152 (construing *Loving v. Virginia*, 388 U.S. 1 (1967) as holding that “activities relating to marriage constitute an extension of a constitutionally guaranteed privacy right).

¹⁵⁹*Meyer v. Nebraska*, 262 U.S. 390, 399-403 (1923); *Pierce v. Soc’y of Sisters*, 268 U.S. 510, 534-35 (1925); *Troxel v. Granville*, 530 U.S. 57 (2000).

¹⁶⁰*Skinner v. Oklahoma ex rel. Williamson*, 316 U.S. 535, 541 (1942) (invalidating a statute requiring the sterilization of habitual criminals).

¹⁶¹*Griswold*, 381 U.S. at 479 (striking down legislation that prevented married couples from obtaining contraception).

¹⁶²*Roe*, 410 U.S. at 152 (describing certain rights of personal privacy or a zone of privacy).

¹⁶³*Lawrence v. Texas*, 123 S. Ct. 2472, 2484 (2003) (holding that homosexual conduct is protected by the constitutional right to privacy).

¹⁶⁴*Moore v. City of East Cleveland*, 431 U.S. 494 (1977).

¹⁶⁵*Cruzan v. Missouri Dept. of Health*, 497 U.S. 261 (1990).

¹⁶⁶*Eisenstadt v. Baird*, 405 U.S. 438, 453(1972).

¹⁶⁷*Lawton v. Steele*, 152 U.S. 133, 136 (1894).

¹⁶⁸U.S. CONST. amend. X. “The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.” *Id.*

justice, and morality.¹⁶⁹ This power is the basis for which state and local governments can enact legislation that might otherwise violate the Constitutional rights of a citizen.

1. Limitations on Liberty by the State Police Power

It has been a subject of wide debate, but has been generally accepted by the states that police powers include the ability to enact legislation in the interest of public safety, health, and morals.¹⁷⁰ The legislature must use caution to regulate health measures. The police power of the State is a powerful tool but will be strictly scrutinized by the courts if it infringes upon an individual's Constitutional right. For the legislature to enact such a bill, it must not arbitrarily interfere with private business, or impose unusual or unnecessary restrictions under the guise of public policy.¹⁷¹

The Supreme Court has not upheld all legislation enacted as a public health measure. In *Lochner v. New York* a statute limited the number of hours a person could work in a bakery.¹⁷² The Court found the law limited the individual's freedom to contract with their employer, and the right to contract is a protected constitutional grant under the liberty clause.¹⁷³ If the working conditions of the baker were hazardous to his or her health, then the law may not have been a violation of liberty, since it was a valid exercise of police power to enact legislation concerning health matters.¹⁷⁴ The courts must scrutinize legislative acts in a narrow fashion concerning constitutional rights. If they do not, then anytime the state legislature decided to enact legislation appearing to violate those rights, the state would only have to defend on the premise of police power.¹⁷⁵

The Court determined that in order for legislative action to be appropriate under the state police power, it has to have a direct relation and be for legitimate purposes.¹⁷⁶ The Court stated the occupation of a baker is not inherently dangerous or unhealthy, and the legislation was enacted for the sole purpose as to regulate labor.¹⁷⁷ Limiting the individual's labor is a double-edged sword as it also limits an individual's ability to support himself or his family.¹⁷⁸ The Court found the regulation was unconstitutional since it was unable to determine the law was a valid use of police power, but rather was an infringement on the right to contract.¹⁷⁹

¹⁶⁹Black's Law Dictionary 1178 (7th ed. 1999).

¹⁷⁰*Lawton* at 136.

¹⁷¹*Id.* at 137.

¹⁷²*Lochner v. New York*, 198 U.S. 45 (1905).

¹⁷³*Id.* at 53, quoting, *Allgeyer v. Louisiana*, 165 U.S. 578 (1897).

¹⁷⁴*Lochner*, 198 U.S. at 55.

¹⁷⁵*Id.* at 56.

¹⁷⁶*Id.* at 57.

¹⁷⁷*Id.* at 59.

¹⁷⁸*Id.* at 56.

¹⁷⁹*Id.* at 64.

Several state Supreme Courts have upheld compulsory vaccination laws as a proper function of police power.¹⁸⁰ This legislation has not only been upheld for the inhabitants of a city, but for those who are employed, attend school, or live within one and a half miles of the city limits.¹⁸¹ Most of the compulsory vaccination legislation that has been enacted revolves around the smallpox virus and the state's interest in protecting its citizens from an epidemic outbreak. The legislatures have the ability and are charged with the passing of regulations, which will protect each of its citizen's health.¹⁸² If a state can deprive its citizen's liberty interests in order to enlist them in armed forces to protect its borders, then it can enact laws requiring them to acquiesce to compulsory vaccinations.¹⁸³

Courts have upheld provisions allowing for the compulsory quarantine of individuals until they receive the vaccination and are symptom free.¹⁸⁴ This penal regulation truly impinges the right to be free of physical restraint, but the court held that if the legislature or the official left in charge by the General Assembly believes the city to be in peril, he has the ability to require such measures.¹⁸⁵ In the seminal case of *Jacobson v. Massachusetts*, the U.S. Supreme Court held that an individual's right of liberty is not absolute.¹⁸⁶ The Court discussed the issues regarding the state's right to submit individuals to reasonable regulations that tend to limit one's liberty (such as mandatory vaccinations), ruling the police power of the States is there to protect the public health and safety and such limits are constitutional.¹⁸⁷

The *Jacobson* Court dealt with a compulsory smallpox vaccination program that was instituted by the Board of Health of Massachusetts in February of 1902, which imposed the requirement on each citizen not vaccinated since March of 1897. The vaccination regulation was enacted due to the overcrowding of the city inhabitants, which led to cramped housing, and eventually an epidemic of smallpox. Citizens were given the option to either receive the vaccination, or be re-vaccinated.¹⁸⁸ The only exemption was for children who had a signed medical waiver.¹⁸⁹ The regulation created a criminal enforcement statute, which imposed a five-dollar fine on any person who refused or neglected the vaccination.¹⁹⁰ The defendant, Jacobson, refused the vaccine for himself and his son and was subsequently arraigned for failing to

¹⁸⁰*Morris v. City of Columbus*, 30 S.E. 850 (Ga. 1898).

¹⁸¹*Id.*

¹⁸²*Id.* at 852.

¹⁸³*State v. Hay*, 35 S.E. 459, 461 (N.C. 1900).

¹⁸⁴*In re Smith*, 40 N.E. 497, 498 (N.Y. 1895).

¹⁸⁵*Id.*

¹⁸⁶*Jacobson v. Massachusetts*, 197 U.S. 11, 26 (1905).

¹⁸⁷*Id.* at 25.

¹⁸⁸*Id.* at 13. (The law was enacted since smallpox was still a threat within the community and vaccination was the only defense).

¹⁸⁹*Id.*

¹⁹⁰*Id.*

comply with the statute.¹⁹¹ Jacobson requested jury instructions which stated the regulation violated his rights as guaranteed by the:

Fourteenth Amendment of the Constitution of the United States, and especially of the clauses of that amendment providing that no State shall make or enforce any law abridging the privileges or immunities of citizens of the United States, nor deprive any person of life, liberty or property without due process of law, nor deny to any person within its jurisdiction equal protection of the laws.¹⁹²

The lower court denied Jacobson's requested instructions and the jury handed down a guilty verdict. The court ordered him to be held until the five-dollar penalty was paid.¹⁹³ The case was reviewed by the Supreme Judicial Court of Massachusetts, which sustained the lower court's ruling and denied reviewing the exemptions.¹⁹⁴

The U.S. Supreme Court heard arguments by counsel on December 6, 1904. At this time it was determined that eleven states had compulsory vaccination laws, thirty-four of the states did not have any compulsory vaccination laws, and three quarters of the states did not have a legal penalty for enforcement of the laws.¹⁹⁵ Jacobson's attorney argued smallpox was not the problem it once was and treatment called for sanitation and isolation, not vaccination.¹⁹⁶ He argued the law was unreasonable, as it was not equally applied.¹⁹⁷ He referred to the exemption for children; in which the "[c]ompulsion to introduce disease into a healthy system is a violation of liberty"¹⁹⁸ as well as "[t]he right to preserve life is the most sacred right of man and is specially provided for in the Preamble of the Federal Constitution."¹⁹⁹ Jacobson also stated the Board of Health has a grant of arbitrary powers, which allows it to decide the necessity and methods of vaccination, and the failure to provide him with a hearing was a violation of his due process rights.²⁰⁰ The Court was not persuaded.

The state argued the vaccination law was a proper use of the state police power, because it was a health measure and the law was substantially related to the public health, safety, and welfare.²⁰¹ In addition, the state pointed out the legislature is

¹⁹¹*Id.* at 15.

¹⁹²*Id.* at 16-17.

¹⁹³*Id.* at 17.

¹⁹⁴*Id.*

¹⁹⁵*Jacobson*, 197 U.S. at 15.

¹⁹⁶*Id.*

¹⁹⁷*Jacobson* at 16.

¹⁹⁸*Id.* at 17.

¹⁹⁹*Id.* quoting, *Slaughter House Cases*, 83 U.S. 36 (1872).

²⁰⁰*Id.* at 17-18.

²⁰¹*Id.* at 19 (The state also cites *Lawton v. Steele*, 152 U.S. 133, 136 (1894) stating as a way of illustration that compulsory vaccinations are a proper use of police power). *See, id.* at 19.

empowered to decide what laws are necessary to protect the public health, morals, and safety.²⁰² The Court upheld Jacobson's conviction and found the use of vaccinations for contagious diseases had been medically determined as preventative.²⁰³ The Court stated that the risk of injury from vaccination was small when compared to the substantial social benefits.²⁰⁴

The Court also determined that legislatures and courts acted upon these programs with unanimity.²⁰⁵ The Court stated, the "police power of a State must be held to embrace, at least, such reasonable regulations established directly by legislative enactment as will protect the public health and public safety."²⁰⁶ The Court said liberty, as secured by the Constitution of the United States, does not import an absolute right in each person to be free from every restraint at all times and circumstances.²⁰⁷ Some restraints are necessary to impose on an individual for the common good.²⁰⁸ It is well established by law that any citizen is subject to certain laws by the various state legislatures as long as the regulations are reasonable and are related to the essential safety, health, peace, and morals of the community.²⁰⁹

The Court discussed the liberty clause within the Fourteenth Amendment as not being construed to the full extent *Jacobson* puts forth. The Court acknowledged liberty included the right of the individual to work and live where they wish, but nonetheless being required to join the ranks of the militia against their will and risk the chance of death in defense of the nation was Constitutional.²¹⁰ The Court noted that smallpox is a contagious disease, which presents an extreme danger to the public safety.²¹¹ If the primary purpose of a vaccine for use as a means to protect a community against a bioterrorism attack, no court or jury is justified in disregarding an act of the legislature based on the opinion that the method is not the best for children or adults.²¹²

The final point the Court makes is that they are "unwilling to hold it to be an element in the liberty . . . that one person, or a minority of persons, residing in any community and enjoying the benefits of its local government, should have the power

²⁰²*Id.* at 20, *quoting*, *Booth v. Illinois*, 184 U.S. 425 (1902); *Austin v. Tennessee*, 179 U.S. 343 (1900); *Fertilizing Co. v. Hyde Park*, 97 U.S. 659 (1878).

²⁰³*Id.* at 24.

²⁰⁴*Id.*

²⁰⁵*Id.*

²⁰⁶*Jacobson* at 25.

²⁰⁷*Jacobson* at 26.

²⁰⁸*Id.*

²⁰⁹*Id.* at 26; *quoting*, *Crowley v. Christensen*, 137 U.S. 86, 89 (1890) (The Court found, "[t]he possession and enjoyment of all rights are subject to such reasonable conditions as may be deemed by the governing authority of the country essential to the safety, health, peace, good order and morals of the community"). *Id.*

²¹⁰*Jacobson*, 197 U.S. at 29; *quoting* *Allgeyer v. Louisiana*, 165 U.S. 578 (1897).

²¹¹*Jacobson* at 34.

²¹²*Id.* at 35.

thus to dominate the majority.”²¹³ In other words, Jacobson’s individual claim of personal risk does not result in a cognizable violation of his liberty rights under the U.S. Constitution, in that the regulation is aimed at the common good of all inhabitants towards the eradication of smallpox. Essentially, the interest of one does not necessarily outweigh the interest of the many.

D. Judicial Scrutiny

The courts in the United States have three different levels of review regarding the cases before them. They are strict scrutiny, intermediate scrutiny, and the rational basis test. Whenever a court is determining a constitutional issue, they must identify the level of scrutiny to be employed. In dealing with the infringement of fundamental rights, such as liberty and the right to privacy, courts apply the strict scrutiny test.²¹⁴ Strict scrutiny requires that any introduced legislation must have a compelling governmental interest and the measure taken to enforce that interest must be narrowly tailored to that goal.²¹⁵ In application to mandatory vaccination programs, the State Health Departments will have to show there is an immediate need, the welfare of the state is in jeopardy (which creates the compelling interest) and the legislation passed to enforce the requirement is narrowly tailored to that outcome. Strict scrutiny was apparently applied by the U.S. Supreme Court’s review of the vaccination law in *Jacobson*. The Court found mandatory vaccination was a proper use of the state’s police power since the city of Cambridge was in the middle of ending an outbreak of smallpox. The Court also discussed that the criminal penalty could be upheld since the legislation was narrowly tailored to the inhabitants of the city.

V. EXEMPTIONS TO COMPULSORY VACCINATION

While many laws infringe on a person’s rights under the Constitution, there is an exemption which may or may not override the public health, safety and welfare interests sought to be protected by the legislation. For example, forty-eight states allow exemptions for religious beliefs, seventeen exempt philosophical beliefs, and all states allow medical exemptions.²¹⁶

²¹³*Id.* at 38.

²¹⁴*City of Richmond v. Croson*, 488 U.S. 469 (1989); *Adarand v. Peña*, 515 U.S. 200 (1995).

²¹⁵*Adarand* at 227; *Roe* at 154 n.5 (The government must show a compelling governmental interest in creating the legislation and the means used to employ those actions are narrowly tailored to that interest).

²¹⁶Daniel A. Solomon, M.Ph., & Andrew W. Siegle, JD, PhD, Religious and Philosophical Exemptions from Vaccination Requirements and Lessons Learned from Conscientious Objectors from Conscriptio, 116 PUBLIC HEALTH REP 289 (2001); quoting Jackson CL, State Laws on Compulsory Immunization in the United States, 84 PUBLIC HEALTH REP 787-95 (1969).

A. Religious Exemption

Those claiming religious exemption base their argument on the right to free exercise of religion encompassed in the First Amendment.²¹⁷ An individual may invoke this exemption where compulsory treatment for life-threatening diseases violates his or her religious belief, or it is forbidden by their religion.²¹⁸ The U.S. Supreme Court, however, has not recognized the First Amendment exemption to mandatory vaccination programs for dangerous diseases.²¹⁹ The Court stated, “[w]e have never held that an individual’s religious beliefs excuse him from compliance with an otherwise valid law prohibiting conduct that the State is free to regulate.”²²⁰ In order to be valid, the Court carries a requirement that the law is “religion-neutral” and “generally” applicable.²²¹

In *Prince v. Commonwealth of Massachusetts*²²² the U.S. Supreme Court held, “[t]he right to practice religion freely does not include the liberty to expose the community...to communicable disease or . . .to ill health or death.”²²³ In *Brown v. Stone*, the Mississippi Supreme Court went further still when it held the religious exemption violates the equal protection component of the Fourteenth Amendment when applied against a health, safety, and welfare measure.²²⁴ Alleged religious exemption is not much of an exemption at all. The courts following *Brown* seem willing to find a way to circumvent the constitutional right to refuse medical treatment based on state interests. These interests include the protection of life, prevention of suicide, maintaining the integrity of the medical profession, and protecting innocent third parties.²²⁵

The protection of life is the weakest of the three arguments, and is normally used in situations where refusal of the treatment will result in death.²²⁶ The prevention of a suicide is a mere sidecar to the protection of life.²²⁷ In *Wallace v. States*, the Indiana

²¹⁷Kristing M. Lomond, Note, An Adult Patients Right to Refuse Medical Treatment for Religious Reasons: The Limitations Imposed by Parenthood, 31 U. OF LOUISVILLE J. OF FAMILY L. 665, 669 (1993).

²¹⁸*Id.* at 669, quoting, Application of President & Directors of Georgetown College, Inc., 331 F.2d 1000, *reh’g en banc denied*, 331 F.2d 1010 (D.C. Cir.), *cert. denied*, 377 U.S. 978 (1964); *In re Osborne*, 294 A.2d 372 (D.C. 1972); *Norwood Hospital v. Munoz*, 564 N.E.2d 1017 (Mass. 1991).

²¹⁹Solomon, *supra* note 216.

²²⁰*Id.*, quoting, *Employment Division v. Smith*, 494 U.S. 872, 895 (1990).

²²¹Solomon, *supra* note 216.

²²²*Prince v. Commonwealth of Massachusetts*, 321 U.S. 158 (1944).

²²³Solomon, *supra* note 216, quoting, *Prince*, 321 U.S. at 167-68.

²²⁴Solomon, *supra* note 216, quoting, *Brown v. Stone*, 376 So.2d 218 (Sup. Ct. Mississippi 1979).

²²⁵Lomond, *supra* note 219, at 217.

²²⁶*See also Gray*, 697 F. Supp. at 588, quoting, *Tune v. Walter Reed Army Medical Hosp.*, 602 F. Supp. 1452, 1455 (D.D.C. 1985).

²²⁷*Id.*

Supreme Court equated the refusal of life saving treatment with suicide.²²⁸ The problem with equating the refusal of life saving treatment with suicide is the concern that the individual lack the intent needed to commit suicide. In *Wallace*, the individuals wanted to live, just without the procedure, which is a very different proposition than suicide.²²⁹ In reference to upholding the integrity of the medical profession, doctors and hospitals have the necessary tools (informed consent and release forms) in order to allow the refusal of medical treatment.²³⁰ This does not affect the medical profession, which is required to respect a court's order and allow the refusal.

The final and foremost category is the protection of third persons. This basis is afforded the greatest judicial deference.²³¹ In using this approach, courts look to the interest of the party refusing the treatment and the effect on other parties.²³² A party who is not immunized from the dangerous and infectious disease affects third persons. Once infected with a communicable disease such as smallpox, the infected party usually spreads the disease to others. If the infected person was immunized, there is a lower chance of infection and spread of the disease. The Court recognized this in *Jacobson*, and denied exemptions based on the philosophy that the "good of the one does not outweigh the good of the many."²³³

B. Philosophical Exemption

The philosophical exemption is the easiest to espouse by an individual, as it requires no foundation in fact. This exemption is based on an individual's objection for "personal", 'philosophical', 'moral' (or other) beliefs.²³⁴ This exemption requires only that the party asserting the privilege state in writing they have a basis to object to the vaccination.²³⁵ The main difficulty in allowing this type of an exemption is the proof requirement of such convictions.²³⁶ Each state is different in the requirement of proof, and some are more lenient.²³⁷

C. Medical Exemption

Like the philosophical exemption, the medical exemption requires a written declaration. The statement must be written by a licensed physician declaring the vaccination is dangerous to the individual's health.²³⁸ Some courts may also

²²⁸Wallace v. States, 116 N.E.2d 100 (Ind. 1953)

²²⁹Lomond, *supra* note 217, at n.49.

²³⁰Lomond, *supra* note 217, at 674.

²³¹*Id.* at 675.

²³²*Id.* at 676.

²³³*Jacobson* at 27.

²³⁴Kristine M. Severyn, R.Ph., PhD., *Jacobson v. Massachusetts: Impact on Informed Consent and Vaccine Policy*, 5 J. PHARMACY & LAW 249, 261-62 (1995).

²³⁵*Id.*

²³⁶Solomon, *supra* note 216.

²³⁷*Id.*

²³⁸Severyn, *supra* note 234, at 260.

recognize a physician's statement stating a person is still immune to the disease from a past vaccination.²³⁹ The State legislature has to approve a medical exemption, but the courts will not recognize it in a situation that requires a blanket vaccination or re-vaccination program.²⁴⁰

VI. IS THERE AN EXCEPTION TO THE EXEMPTION?

A. *Parens Patria*

Parens patria describes the obligation of the State to act as "parent of the country" in caring for those who are unable to care for themselves.²⁴¹ *Parens patria* (paternalism) is not a new concept for the courts. Essentially, it allows the State to subject the individual's liberty rights for the common good.²⁴² For example, a state has the ability to quarantine individuals infected with tuberculosis in order to treat the ailment as well as for the protection of third parties.²⁴³ The doctrine is invoked in two types of situations. The first is the parent child relationship, where a mother's right to refuse life-saving medical treatment is at issue.²⁴⁴ The second allows medical treatments for those who are unable or incompetent to make the decision for treatment.²⁴⁵ Both of these situations are subject to a "medical paternalism" or "doctor knows best" scenario, where the doctor has the ability to override an autonomous decision by a patient in order to provide beneficial medical treatments.²⁴⁶

Paternalism is defined "as the overriding or restricting of rights or freedoms of individuals for their own good."²⁴⁷ Paternalism is guided by the premise that the average person is unable to comprehend the complexities of modern medicine and only those with the proper education, training, and knowledge should make the decision.²⁴⁸ This is the backdrop to most mandatory vaccination regulations. The State Boards of Health make the recommendation to the legislature to create the regulation. The subsequent enactment of mandatory vaccination statutes is the

²³⁹*Morris* at 793.

²⁴⁰*Jacobson* at 21.

²⁴¹Paula Mindes, *supra* note 133 at 412.

²⁴²Flowers, *supra* note 127, at 110, *quoting*, Tom L. Beauchamp & James L. Childress, *PRINCIPLES OF BIOMEDICAL ETHICS*, 274 (4th ed. 1994).

²⁴³*Id.*

²⁴⁴Lomond, *supra* note 217, at 679 (The doctrine can only be invoked if the child is in immediate danger).

²⁴⁵*Mills* at 296, *quoting*, *Rogers v. Okin*, 634 F.2d 650, 655-57 (1st Cir. 1980) (The state could forcibly treat mentally ill patients under its police powers in order to avoid the possibility of harm to the medicated individual).

²⁴⁶Severyn, *supra* note 234, at 254, *quoting*, Beauchamp, *Informed Consent*, in *MEDICAL ETHICS*, 191 (R. Veatch 1989).

²⁴⁷Severyn, *supra* note 234, at 254, *quoting*, Goldman, *The Refutation of Medical Paternalism*, in *ETHICAL ISSUES IN MODERN MEDICINE*, 157 (J. Arras & N. Rhoden eds. 1989).

²⁴⁸Severyn, *supra* note 234, at 255.

embodiment of paternalism. This only comes into question when an individual refuses vaccination and criminal proceedings are enforced. Courts will validate such programs under the police power of the state and, if an exemption is allowed under the legislation, courts typically balance the benefit to society over the interests of the individual. The individual loses the challenge and the *parens patriae* doctrine is often all the underpinning the court needs to override the Constitutional interests of the individual.

VII. DISCUSSION AND ANALYSIS

Each citizen will have to make a conscious decision: Will I allow my family to be involuntarily exposed to the smallpox and anthrax vaccinations if made available? President George W. Bush has announced he will make the smallpox vaccination available to every citizen who voluntarily wishes to be inoculated by 2004. Some in the medical community do not agree with vaccinating the American public at this time, claiming it is unnecessary because an emergency does not currently exist.²⁴⁹ Opponents are concerned that the vaccine itself is unsafe, and the risk to the populace outweighs the need for preventative vaccinations.²⁵⁰ This vaccination offering to the public is presently voluntary, but what happens or will the effect be if the vaccination becomes a mandatory requirement? This author agrees with the Court in *Jacobson v. Massachusetts*: mandatory vaccination programs are not only legal, but also that the good of one does not outweigh the good of the many.

Smallpox is an indiscriminant killer.²⁵¹ An infected person can contaminate others by simply coughing.²⁵² The disease spreads so easily that a person does not even need to be in direct contact with the infected patient.²⁵³ The vaccine itself kills about one to three people per million, and about ten in one million develop encephalitis.²⁵⁴ Those with immune disorders, eczema, or HIV are at a higher risk for complications.²⁵⁵ With 288 million people in the United States, approximately 4,320 will either die or suffer the previously mentioned complications.²⁵⁶ This

²⁴⁹Henry I. Miller, M.D. & David Longtin, *Don't Offer all Americans Smallpox Vaccinations Now*, USA TODAY, at 15A; also available at <http://www.usatoday.com/usatonline/20021120/4637086s.html> (last visited Dec. 5, 2002).

²⁵⁰*Id.*

²⁵¹Neil Solomon, *Defend our State Against Smallpox*, THE BALTIMORE SUN, Oct. 28, 2001, at 3F (Smallpox kills 30% of those infected that have never been vaccinated and kills 20% of those who have been vaccinated as a child).

²⁵²Henderson, *supra* note 76, at 2131.

²⁵³Philip M. Boffey, *Guessing How Quickly a Terrorist Smallpox Virus Could Spread*, NEW YORK TIMES, available at <http://www.nytimes.com/2002/12/10/opinion/10TUE4.html> (last visited, Dec. 10, 2002) (An isolated smallpox patient, in a German hospital was able to infect 17 people who never had any contact with him, some in rooms two floors above, a visitor who was barely on the floor, and hospital staff that never had close contact).

²⁵⁴Solomon, *supra* note 251.

²⁵⁵Longtin, *supra* note 249.

²⁵⁶Solomon, *supra* note 251.

disease can spread by a multiplier of ten for each person infected.²⁵⁷ For each one of those ten people, ten more can be expected to contract it.²⁵⁸ The statistical analysis demonstrates the spread from hundreds, to thousands, and even millions of infected people in a short amount of time if we remain unprepared. The death rate will be between 20-30%.²⁵⁹ There is no known cure, only supportive therapy.²⁶⁰

Anthrax is not as deadly since the disease is not communicable. A person must come in direct contact in order to be infected.²⁶¹ This disease can be treated with antibiotics. A doctor must diagnose the patient promptly or anthrax can be just as fatal as smallpox. Both of these diseases are likely choices for a terrorist organization as far as biological weapons are concerned.²⁶² The contaminants are generally inexpensive to produce or obtain, and the dispersion technology does not need to be highly sophisticated in order to be effective.²⁶³ We have seen an example of this through the letters laced with anthrax in 2001. For countries or terrorist groups that do not have nuclear capabilities, these contaminants are the perfect choice for use against any enemy.²⁶⁴ The United States is especially vulnerable along its borders with Canada and Mexico, through its thousands of miles of coastline, and through its daily imports and travelers.²⁶⁵ This country cannot stop the illegal drug trade, let alone stop an otherwise unremarkable shipments containing anthrax or smallpox.²⁶⁶

Is a compulsory vaccination policy a violation of a person's right to privacy as protected by the right to liberty within the Fourteenth Amendment? Forcing a person to undergo vaccination is infringing on the rights of the individual to be free from unwanted governmental intrusion and restraint. A mandatory vaccination program undermines one's ability to refuse life saving medical treatment. The right to be free from such an intrusion is implicitly guaranteed by the Constitution. Regarding a health and welfare measure, state governments have the power to regulate and enforce such legislation under their police power. The legislation must deal with the health and welfare of the state, and it must be narrowly tailored to achieve that goal. The Supreme Court dealt with this situation directly in *Jacobson v. Massachusetts*, where it stated the state's police power permits such an intrusion. The Court stated the individual risks involved with the smallpox vaccination did not outweigh the public benefits.²⁶⁷ In addition, the Court elaborated that the right to liberty was not

²⁵⁷*Id.*

²⁵⁸Boffey, *supra* note 253.

²⁵⁹Solomon, *supra* note 251.

²⁶⁰Henderson, *supra* note 76, at 2134.

²⁶¹Ingelsby, *supra* note 72.

²⁶²Ingelsby, *supra* note 43.

²⁶³*Id.*

²⁶⁴Henderson, *supra* note 42.

²⁶⁵DuPont, *supra* note 40.

²⁶⁶*Id.*

²⁶⁷*Jacobson* at 26.

absolute at all times; the states have the ability to force certain restrictions on an individual for the common good.²⁶⁸ This author agrees with *Jacobson's* reasoning that an individual's right to liberty is not absolute.²⁶⁹ If the State legislature creates a regulation requiring all citizens to be subject to mandatory vaccinations, then so be it. The common theme runs true. The good of the many outweighs the interest of one. As of this date, smallpox has been eradicated as a natural threat.

If the states, under the recommendation of the health departments, mandate a vaccination program, will there be exemptions for religious, philosophical, or medical reasons? If there are such exemptions, how will the validity of the excuse be tested? The exemptions, whether they are religiously, philosophically, or medically based are not true exemptions. The allowance of such exemptions only puts the public at a significant disadvantage; hence, their judicial disfavor. Such exemptions should be rejected based on causal problems created for innocent third parties. If a person produces a valid statement from their church stating it is against the religious beliefs, then the courts should grant the exemption. However, only a handful of religions, such as Christian Scientists²⁷⁰ and Jehovah's Witnesses, do not allow for medical treatments.²⁷¹ Perhaps the numbers of exemptions are small enough to risk the trade-off.

If a person does not belong to one of those camps, then the exemption would likely fall under the philosophical category. The philosophical category is a basic statement that one does not believe in vaccination for some moral, ethical, or other belief based reason. Persons in both categories would attempt to file claims with the court under a violation of their First and Fourteenth Amendment rights. The Supreme Court of Mississippi, in *Brown v. Stone*, determined the religious exemption to be in violation of the Fourteenth Amendment.²⁷² In addition, the U.S. Supreme Court held in *Prince v. Commonwealth of Massachusetts*, that the right to practice religion freely does not grant the individual the right to expose the community to communicable disease or death.²⁷³ The Court further stated as long as the regulation is "religion neutral" and "generally applicable" it would not violate the First Amendment.²⁷⁴

The only fact-based exemption is the medical exemption. This exemption requires a written statement from a physician stating the vaccination is dangerous to the person's health. Most courts will not allow an exemption if the state legislature

²⁶⁸*Id.*

²⁶⁹*Id.*

²⁷⁰Tish Davidson, Christian Science Healing, in Gale Encyclopedia of Alternative Medicine, available at http://www.findarticles.com/cf_dls/g2603/0002/2603000280/pl/article.jhtml (last visited, Feb. 29, 2004). Christian Scientists refusal of all medical treatments based on faith healing.

²⁷¹Osamu Muramoto, Recent Developments in Medical Care of Jehovah's Witnesses, *Western Journal of Medicine*, available at <http://www.ajwr.org/wjm/wjm.htm> (last visited, Feb. 29, 2004). Religious refusal on blood transfers and require bloodless procedures.

²⁷²*Brown v. Stone*, 376 So.2d 218 (Sup. Ct. Mississippi 1979)

²⁷³321 U.S. 158 (1944).

²⁷⁴Salomon, *supra* note 216.

has not previously provided the exemption.²⁷⁵ In other words, there are no exemptions unless the State legislature allows one.²⁷⁶ If the legislature allows it, the courts will find a way around the issue by its interest in protecting innocent third parties.

If an individual is successful in establishing an exemption challenge against the state, the courts can still override the exemption by the doctrine of *parens patriae*, or paternalism. In other words, the state is viewed as “parent of the country,” and the regulation suffices the test of being a health measure, narrowly tailored to that outcome. The courts will allow the state to prevail over an objection by the individual. This doctrine is typically used in two situations: first, a mother’s right to refuse life saving medical treatment; second, for medical treatments for those who are unable or incompetent to make the decision for treatment. The states have used this doctrine in the past for quarantine measures during tuberculosis outbreaks. Therefore, states can enforce quarantine measures if a bioterrorism attack occurs. Allowing the quarantine of infected individuals not only allows the patient to be treated, but also protects innocent third parties from possible infection.

If a case were to be brought in front the U.S. Supreme Court today concerning a refusal to partake in the mandatory vaccination program, what would be the outcome? The Court would have to weigh the same interests as in *Jacobson*. They would also have to weigh the individual’s interest versus the interests of innocent third parties. The Court will have to decide whether the regulation purpose is for the health, safety, and welfare of the state, and whether it was validly enacted under the umbrella of state police power.

Using a strict scrutiny review standard, the Court will have to establish whether the regulation fits the particular purpose and is narrowly tailored to that outcome. Finally, the Court will have to weigh past precedent. If the precedent set forth by *Jacobson* and others was not followed, the Court would effectively rewrite a century of law concerning state police power. The Court has to be very careful overturning the *Jacobson* decision as it would effectively negate the definition of state police power. The current Supreme Court should follow past precedent and rule in favor of the State legislature on any mandatory vaccination program, provided the regulation included all persons equally, and narrowly tailored to the outcome of the health and welfare of the state.

VIII. CONCLUSION

State police power can be a powerful tool in the hands of the legislature, but it has to be used for the strict purposes defined by the courts as health, safety, or welfare measures.²⁷⁷ There have been instances where the state legislatures have created regulations under the guise of a health, safety, or welfare measure. In these instances, the U.S. Supreme Court has ruled against cloaking an unconstitutional regulation in Health and Safety concerns. The regulation in *Lochner* was passed under the appearance of a health, safety, and welfare measure.²⁷⁸ The U.S. Supreme

²⁷⁵*Jacobson* at 21.

²⁷⁶*Id.*

²⁷⁷*Jacobson* at 17, quoting, *Booth v. Illinois*, 184 U.S. 425 (1902); *Austin v. Tennessee*, 179 U.S. 343 (1900); *Fertilizing Co. v. Hyde Park*, 97 U.S. 659 (1878).

²⁷⁸*Lochner v. New York*, 198 U.S. 45 (1905).

Court found the work of a baker is not inherently dangerous and did not warrant the intrusion of the state on the individual's right to contract.²⁷⁹ In the area of mandatory vaccinations, there has been well-established law through the court in *Jacobson v. Massachusetts*, stating a person's right to liberty is not absolute, and therefore some restrictions can be enforced against an individual.²⁸⁰ As a constant theme, the interest of one does not outweigh the good of the many.

The issue of terrorism is not new, but the United States has never seen an attack on its own soil until recently. There have been a few domestic terrorist encounters, but nothing to match the attack on September 11, 2001, and the subsequent discovery of anthrax through the mail system. The secondary attack is most concerning as it demonstrates the ability for a silent deployment of biological weapons on a nationwide scale. As the discovery of the anthrax was not found until after several postal employees had become ill, this marks the ability of an enemy to launch an attack without detection upon the United States.²⁸¹ How do we prepare ourselves for the next attack and what will it involve? Biological agents such as anthrax and smallpox are colorless, odorless, tasteless, undetectable, cheap and easy to reproduce, and the deployment technology is not sophisticated.²⁸² Many biological agents are effective upon entrance into the respiratory system and can pass from person to person. The only effective defense against the infection itself or at least the spread of the infection caused by these agents is vaccination and quarantine in case of communicable agents such as smallpox.

An individual does not have the ability to avoid participating in a mandatory vaccination program unless they are within an exempted category. If they were not within such a category, a Constitutional challenge as to the validity of such a regulation would fail. The police power of the state in the form of vaccination regulations outweigh an individual's otherwise Constitutionally protected right of liberty in order to protect the populace. Therefore, a compulsory vaccination program may be the only way to combat the use of biological weapons and avoid the potential outbreak of the contaminants.

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²⁷⁹*Id.* at 59.

²⁸⁰*Jacobson* at 21.

²⁸¹H.R. Doc. No. GAO-02-129T.

²⁸²DuPont, *supra* note 40.