

CAN THE US DEVELOP A
PUBLIC HEALTH POLICY
TO PROACTIVELY
ADDRESS
THE
BIOTERRORIST THREAT?

Prepared for

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Abstract

The United States is facing a real bioterrorist threat. This threat was real before, but the United States did not truly face or address it. To do so, it is addressing resourcing for upgrades to information technology, improvements to Department of Defense capabilities, and improvements to vaccine protections.

As each of these improvements is implemented, an assumed public health aspect is tangentially considered. However public health before, during and after an attack are not tangential considerations.

Therefore public health policy needs to be reviewed head on because the added dimension of bioterrorism may not permit us the luxury of the historical public health policy model.

This paper reviews this bioterrorist dimension and the perspective it brings to the legal and implementation aspects of a bioterrorism public health policy.

PURPOSE

The purpose of this paper is to highlight the unique aspects of a bioterrorism public health policy as they apply to law, implementation, and the organizations that would have to work together before, during and after a bioterrorist event. These same organizations are used to public health policy working from a perspective of: vector control, vaccination (when possible), social behavior changes if necessary, improved sanitation, and improved caregiving. Bioterrorism public health policy may have to work a bit differently.

INTRODUCTION

From pre-Columbian societies through Byzantine Rome to feudal Europe, world history is replete with examples of infectious disease contributing to the destabilization, and eventual demise of a society.¹ Therefore any society threatened with the potential for such destruction must respond with pre-emptive protections and safety precautions.

Infectious disease can present such a threat and a terrorist declared war against the United States² could include the use of pathogens that cause infectious disease. If this weapon is used the devastation could be phenomenal.

This would not be the first time pathogens have been seen on a battlefield or used in war. Pathogenic agents are known for their destruction on the battlefield. History has many examples of these unseen enemies claiming more victims than actual fighting during conflict.³ If a terrorist uses a pathogen as a weapon, our collective bodies become the battlefields, and the result could be just as devastating as any war waged on our streets.

Federal, state and local officials must, therefore, be prepared to respond to these microscopic tools of war. But as they respond, they should do so in a manner that does not neglect public health policy, as the general US public is now, more than ever before, a part of this declared war. But what public health policy can address the requirements of this war and still retain a “proactive” approach to public health care?

¹ p. 117, Price-Smith, Andrew T., The Health of Nations: Infectious Disease Environmental Change, and Their Effects on National Security and Development, The MIT Press, Cambridge MA, 2002

² p5, Mujahid Usamah Bin Ladin Talks Exclusively to “NIDA ‘UL ISLAM About The New Powder Keg in the Middle East. <http://islam.org.au> October-November 1996.

³ p. 118, Ibid

Should the response focus on efforts to prevent the threat and if so, how far can it go to achieve that prevention? Should the response focus on protection after the threat has become a reality? How much of the response should be health care policy and how much regulation/law? How much is federal and how much is state and local?

METHODOLOGY

Using current public health policy, recently published books and current peer-reviewed articles on bioterrorism's effect on public health policy, I will seek to determine if it is possible for the United States to institute a proactive public health policy to adequately address the ramifications presented by the bioterrorist threat. All publications are within the last five years and most are within the last three. This is because so much has changed since the September 11, 2001 attacks. The concept of a bioterrorist attack actually occurring also changed after the receipt of the first anthrax letter. And many public officials became believers after the first death.

Most information sources rested discussions on law as it relates to bioterrorist attacks, and the struggle to maintain appropriate federal-state relationships. Some discussed public health as it relates to the newly enacted Public Law 107-188, Public Health Security Bioterrorism Preparedness and Response Act of 2002.

Each pointed out that the working relationship between public health policy authorities at the respective federal state and local jurisdictions have their own methods of proceeding. Policy vice regulation usually governed their interactions. More than one pointed out the fact that there was no federal entity to oversee public health as a national

office with authority to direct. Each office in the national level can offer advice and guidelines, but it is up to the state and local officials to decide if the advice is followed. Direct discussion of proactive policy development was handled by only a few.

RESULTS

According to Victoria Sutton, in *Bioterrorism Preparation and Response Legislation - - The Struggle to Protect States' Sovereignty While Preserving National Security*⁴ the question of bioterrorism based public health policy is legal - a matter of conflict between federalism and the state's rights. Historically, public health has been a matter for each state. The Tenth Amendment to the Constitution clearly gives the state purview over the public health of citizens within its borders. If a flash flood devastates a town or city, the state medical personnel respond with help. If an earthquake rumbles or a tornado strikes, a state usually has the resources to respond to the health care needs of its citizenry. The casualties would be limited and momentary. Federal assistance is only included if asked by the Governor.

Because of this, the federal government has no central public health entity. It was felt to be unnecessary and an intrusion into state area of responsibility. However, the anthrax letters did not remain with one state, and the plume from a bioterrorist's aerosol distribution of plague or anthrax would be no respecter of state border's either. This then begs the question, should the federal government, therefore, step in and take responsibility for the public's health-just for bioterrorism? Would that set an untenable precedent?

⁴ p1., Sutton, Victoria, *Bioterrorism Preparation and Response Legislation - - The Struggle to Protect States' Sovereignty While Preserving National Security*, Georgetown Public Policy Review, Spring 2001.

The federal government has exercised rights in public health policy in the past, but usually in the international realm: intelligence, defense and economic protections.⁵ But a bioterrorist event would, over time, have an ongoing casualty count that reached across a region, coast or the country as a whole.⁶ Clearly the issue of a bioterrorism public health policy is more than just a federal versus state question.

James Hodge, Jr. however looks at the issue from the perspective of leadership.⁷ Leadership's response, he says, and capacity must be properly developed so that public health authorities respond appropriately given the agreed goals of the event. The Federal government has created the Office of Homeland Security, reorganized several other offices and taken a leadership role to combat what it perceived are existing and anticipated bioterrorist threats. He looks at this leadership from the standpoints of focus, resources, and capabilities.

First let us examine focus. Should leadership emphasize prevention of the attack and is prevention possible?

To prevent an attack we need a system of surveillance that weaves national, state and local health care entities. These entities must be able to monitor and communicate as well as respond in order to identify an imminent threat.

To do this requires vast financial resources, more than most states' possess. In addition, ensuring sufficient attack-response needs such as vaccine or antibiotics are on hand requires a large logistics support system, one that can respond to local as well as

⁵ p2., Ibid

⁶ p2., Ibid

⁷ p4., Hodge, James, Jr., *Bioterrorism and Public Health Law: The Critical Choices*, Journal of Law, Medicine and Ethics 254 (Summer 2002)

regional needs. The federal government can access several national logistics systems, including the Department of Defense and the Department of Health and Human Services.

In addition, he considers data and intelligence. How leadership respond if intelligence or health care trend data analysis indicates a potential threat? These data indicators are only indirect evidence? Should rigorous law enforcement follow? What if the information indicates that if the attack does occur its death count will be staggering. In a situation such as that, would a state emergency authority be necessary or advantageous to invoke?⁸ Would an emergency even exist when the only clue available is conclusions drawn from trend data?

Again according to Hodge, the federal government's leadership may be the point of reference. Its data analysis techniques and ability to coordinate a national response to verify the trend data supposed threat and then rapidly deploy personnel to eliminate it is stronger than state related. This proactive approach, however, may need tempering given law enforcement's requirement to respect constitutional rights.

Next we must consider the actions taken once the threat becomes a reality. What is the proactive approach? For example, if a terrorist releases an aerosolized bioagent, everyone agrees federal, state and local law enforcement officials will have to participate in the investigation. But how we conduct it to identify a culprit and learn or profit from the experience? According to Public Law 107-188, all actions will be taken to expeditiously apprehend anyone who commits a bioterrorist act. The new law strengthens the Department of Agriculture and provides for new Assistant Secretaries of

⁸ p1., Kellman, Barry, Biological Terrorism: Legal Measures for Preventing Catastrophe, Harvard Journal of Law and Public Policy 417-484, 425-446 (Spring 2001)
<http://academic.udayton.edu/health/syllabi/Biterrorism/4PhealthLawlaw/PhealthLaw/PHLaw03.htm>.

Emergency Preparedness. A proactive public health policy or learning from the event is only inferred with the increased surveillance and data analysis.⁹

Hodge addresses this by reminding us that historically public health authorities have resisted aiding criminal investigations primarily because of the potential for misconstruing their role. They do not want to be perceived as local police. This could negatively affect other public health programs these entities manage outside the bioterrorism realm.

The Model States Emergency Health Act (MSEHA) is another source that addresses an attack as well. However, it connotes a requirement for one of the following: 1) bioterrorism 2) the appearance of a novel or previously controlled or eradicated infectious agent or biological toxin 3) a large number of deaths 4) a large number of long-term disabilities 5) widespread exposure to an infectious or toxic agent that poses a significant risk of substantial future harm¹⁰ before an emergency can be declared. Given the difficulty at times to immediately determine a bioterrorist attack has occurred, and the appearance of many new emerging diseases to appear as ordinary diseases, the first two requirements may make responding to an attack late. In addition, not all agents will automatically produce large numbers of casualties. Handled properly by a terrorist, a bioagent could have its initial attacks pinpointed, but elude detection because they appear so long after being deposited¹¹

Ian O. Lesser in his *Countering New Terrorism* has a different approach; it looks at the lethality aspect. In his book Lesser says monitoring lethality can give an indication

⁹ PL 107-188

¹⁰ p11 Model State Emergency Health Powers Act, December 21, 2001

¹¹ p.11 Ibid.

that terrorists' attitudes toward particular agents' have changed and monitoring those changes will provide a means to determine transformations and, indeed, culprits.¹²

This leads to the third consideration in this analysis: how much public health response to an attack should be health care policy implementation and how much should be regulation/law enforcement.

James Hodge addresses the balance between the two.¹³ Hodge acknowledges the potential for confrontation exists after an attack because public health care personnel may be aware of many more of the facts, both health and attack since they are first on the scene. However, criminal investigation personnel traditionally assert themselves and their jurisdiction as soon as they arrive. This can negatively affect both trying to do their jobs in what is probably a most difficult situation.

The MSEHA addresses this as well and offers a solution by requiring, to the extent possible, "identification of public health personnel" to work with all aspects of the situation during "the emergency" and that the public health authorities shall "collaborate with relevant federal government authorities, coordinate recovery operation and mitigate initiates subsequent to public health emergencies."¹⁴ Even the purview over the destruction of property is assigned to public health.¹⁵

Finally we come to the question of how much of the response should be federal and how much state or local?

According to Sutton, "since the Constitution does not expressly grant Congress the power to enact legislation for national public health, there exists an assumption that

¹² p 13., Lesser Ian O., Countering the New Terrorism, Rand , Santa Monica, CA, 1999

¹³ p 5 Hodge, James, Jr., Bioterrorism and Public Health Law: The Critical Choices in Public Health, Journal of Law, Medicine and Ethics, 254 (Summer 2002)

¹⁴ p19 MSEHA.

¹⁵ p 29 Ibid

Congress does not have the power to do so – rather the states have the power. The Constitutional Convention considered numerous resolutions to give Congress such power, but all were rejected.”¹⁶ She however continues with a quote from the 1920 Scholar James Tobey, “the [federal] Government is, in fact, organized for the express purpose, among others, of conserving the public health and cannot divest itself of this important duty.”¹⁷ She concludes that this offers the federal government a basis on which to develop its national approach to bioterrorism.

She even quotes the Commerce Clause in the Constitution as a vehicle on which to legally base the national approach. According to Sutton, use of the Commerce Clause is permitted because any bioterrorist event would cross state lines. As casualties increased so would the negative economic effect. It would, therefore, inhibit a states ability to conduct commerce and business trade from state to state. This could be very true if we look at the effect SARS had on the commerce of Toronto. As Toronto’s chair of the city’s health board, Joe Mihevc, said reported in a Canadian Broadcasting Company interview, “We are taking . . . millions of dollars in lost potential (economic activity)”¹⁸ By April 24th alone, Ontario province had a reported lost of over \$84 million.¹⁹

Hodge, however, takes a different approach to the question. He reminds us that there is no central public health system and that a spirit of collaboration has sustained the

¹⁶ p9., Sutton, V., *Bioterrorism Preparation and Response Legislation—the Struggle to Portect States’ Sovereignty While Preserving National Security*, The Georgetown Public Policy Review, Spring 2001

¹⁷ p 9., Sutton, V., *Bioterrorism Preparation and Response Legislation—the Struggle to Portect States’ Sovereignty While Preserving National Security*, The Georgetown Public Policy Review, Spring 2001

¹⁸ *The Economic Impact of SARS*, CBC News Backgrounder, April 28, 2003, Updated May 2, 2003.

¹⁹ Ibid.

any interaction between federal, state, and local health care officials.²⁰ He also acknowledges the role played by such agencies as the Environmental Protection Agency, Department of Labor, and even the Office of Civil Rights in the achievement of public health objectives.²¹ Many states even delegate their authorities to the local level in order to accomplish their goals.²²

Hodge goes on to suggest that the frontline defense should be state and local public health personnel because they will be the first to address the situation.²³ Federal personnel would probably receive imminent warnings so he recommends an intelligence facilitator role for federal authorities.²⁴

DISCUSSION

The expression *public health* is an internationally accepted term that connotes prevention and control: prevention of a current disease and control or elimination of future outbreaks.²⁵

But prevention and outbreak control are proactive terms that may or may not apply when the “disease” is bioterrorism. Can we develop a “proactive” public health policy in response to bioterrorism? Better still, can this area of public health policy really be proactive? Are the issues involved too convoluted for a truly proactive approach to the problem?

²⁰ p 3 Hodge, James, *Bioterrorism and Public Health Law: The Critical Choices in Public Health*, Journal of Law, Medicine and Ethics 254 (Summer, 2002).

²¹ p4, Ibid.

²² p4 Ibid.

²³ p 4 Ibid.

²⁴ p4 Ibid.

²⁵ p. xviii, Merson, Michael H., et al, *International Public Health: Diseases, Programs, Systems, and Policies*, Aspen Publishers, Gaithersburg, MD, 2001.

Proactive approaches to the threat of bioterrorism cannot be developed with vaccines or societal life style changes. Instead, “proactive” here, requires us to look at the issue from the standpoint of a war, with our bodies being the battleground. Viewed from that perspective, a proactive approach to bioterrorism examines the sources of the bioterrorist weapon, our response to those sources, the deployment means and our answer to a deployed weapon, and finally our response to the battlefield casualties. Each of the sources offers a means to address different aspects of the total problem.

Ian Lesser provides a means to anticipate attack through a review of trend data. This would be most appropriate given terrorists current awareness that the public is less sensitive to attacks. The frequency with which they occur, whether biological or not, is causing the general public to respond less and less to events.²⁶ This leads to fewer more dramatic events. An examination of trend data would permit us to anticipate mode, if not time.

James Hodge looks at the leadership of the public health response. Any battle needs responsive leadership that will provide guidance and resources to achieve the mission. He does this with a “proactive” response leadership organization. He suggests a flexible approach one, that permits the strengths of federal and state officials to shine. Negatives, and each side has a few, are deemphasized, permitting all parties to significantly contribute to managing an attack and its ramifications. Areas such as national or international surveillance capability are suggested for federal; and response to the actual attack is suggested for the state since they are closer to the war zone itself.

Federal leadership would also carry access to the vast logistics systems available through the Department of Defense and the Department of Health and Human Services.

²⁶ P. 13, Lesser, Ian, Countering The New Terrorism, Rand, Santa Monica, CA.

Intelligence garnered prior to the actual attack could permit a tailored response, and hasten apprehension of the perpetrators. Using the federal leadership creates an excellent environment for a rapidly deployed response team to answer a call-up and quickly remove the biological response. No war can be executed without these absolutely necessary tools.

Next is the issue of jurisdiction. Are the appropriate agencies equipped with the appropriate legal authority? Yes, they are, but broad interpretation is key. This is achieved if we examine and approach the issue as a federal versus states rights frame of reference. Victoria Sutton offers guidance for this and looks at all of the questions posed: focus, prevention, and jurisdiction in the event of an attack. She advises a federal jurisdiction because of the national security nuances to the issue.

Finally we look at the newest laws passed by Congress as they try to provide a means to effectively answer any bioterrorist threat or incident.

The Model State Emergency Health Act sets a uniform guide on or standard for states to tailor for their particular terrain needs. Public Law 107-188, looks at the national response and tries to implement needed changes to facilitate a quick response to any incident, large or small.

Again, there is awareness that the battlefield is each person's body and the release of a microorganism is the same as releasing a cruise missile or weaponized unmanned vehicle.

CONCLUSION

The issue of proactive public health policy is normally envisioned as a response to disease that includes reducing occurrence incidence, eradication so that the specific agent is no longer a threat, and verification that the agent is extinct and therefore no longer a problem.

This, however, cannot be achieved with bioterrorism public health policy. Disease incidence reduction is probably achievable through constant surveillance and vaccine creations. But reducing the bioterrorist incidences to zero is probably only a desire and dream, as is complete eradication. As long as the terrorists continue their war and pathogens are made available to them as weapons in that war, complete eradication is probably impossible.

This is unnerving, particularly when we accept the fact that infectious disease outbreaks will happen naturally anyway. But with today's technology and the terrorists' deployment methods (and their not always claiming an attack when one is made), we can never verify which outbreaks are natural and which are not.

This is a serious consideration given the number over 35 new or emerging diseases that have reared their heads since 1973. Even since the year 2000, over 23 outbreaks have occurred. The year 2003 alone had:

Norwalk Virus Infections on cruise ships

Norwalk Virus Infections in West Coast Hotels

HIV epidemic in China

Monkey Pox in the Mid West

West Nile Infections in Western United States

SARS-like infections in Canada and the Mid-West

Malaria among US troops in Liberia.

Treating these outbreaks is not always easy either. Many of the newer outbreaks involve strains that have an unknown source or no vaccine, making a supportive treatment the only way to proceed.

Can we have a proactive bioterrorist public health policy? Not in the true historical sense. There will be no real eradication, or elimination of the “disease” as the “disease” does not exist. Rather it is a policy to protect us from the unnerving anticipation of an unseen enemy.

We do not know when the terrorists will strike. There is no one season that has more favorable conditions for their proliferation than any other. Instead we model and estimate needs based on pathogens we know and the resources used to protect against them.

We then poise the issue as a public health policy because the anticipated casualties are civilians who cannot carry a weapon or wear a mask to prevent the attack.

Legal and logistical issues prevent the public health community from commandeering the situation and running the show. And, in truth, they really may not want to. The issue is too complicated.

No one is actually sure who should be in charge or how that person in charge should execute the responsibility. Everyone is sure they want to protect as many people as possible. They just aren't sure how. The American psyche is one that needs to feel it can identify a problem, develop a solution and implement a plan of attack that secures an

end to the enemy. This cannot and will not happen with bioterrorism public health policy. No one problem can be identified and no one vector can be eliminated.

The issue also comes down to timing. Before an attack, finding out who wants to deliver a biological weapon or bomb is absolutely important. But it is not a public health policy issue.

However, once the pathogen is released, public health is at stake and the policy implemented is critical. Emphasis changes and we must minimize damage, as much as possible. Maybe, for the case of bioterrorism, the definition of proactive must be reassigned. Instead of meaning “acting before an event”, it should be “being ready before the event”.

We are still at war; it's just that the focus changes.

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