Bio Terror Bible

EXPOSING THE COMING BIO-TERROR PANDEMIC

BIOTERRORBIBLE.COM: Starting in 1939, there have been 21 books, both fiction and non-fiction, dealing with the topics of bio-terror and pandemics. Although these books have been sporadic over the last 50+ years, they have intensified over the last 10.

Title: Living Terrors: What America Needs To Know To Survive the Coming Bioterrorist Catastrophe
Date: October 9, 2000
Source: Good Reads

Abstract: A deadly cloud of powdered anthrax spores settles unnoticed over a crowded football stadium.... A school cafeteria lunch is infected with a drug-resistant strain of E. coli.... Thousands in a bustling shopping mall inhale a lethal mist of smallpox, turning each individual into a highly infectious agent of suffering and death....

Dr. Michael Osterholm knows all too well the horrifying scenarios he describes. In this eye-opening account, the nation's leading expert on bioterrorism sounds a wake-up call to the terrifying threat of biological attack — and America's startling lack of preparedness.

He demonstrates the havoc these silent killers can wreak, exposes the startling ease with which they can be deployed, and asks probing questions about America's ability to respond to such attacks.

Are most doctors and emergency rooms able to diagnose correctly and treat anthrax, smallpox, and other potential tools in the bioterrorist's arsenal? Is the government developing the appropriate vaccines and treatments?

The answers are here in riveting detail — what America has and hasn't done to prevent the coming bioterrorist catastrophe. Impeccably researched, grippingly told, Living Terrors presents the unsettling truth about the magnitude of the threat. And more important, it presents the ultimate insider's prescription for change: what we must do as a nation to secure our freedom, our future, our lives (Good Reads, 2000).

Title: Book Warned U.S. Of Its Vulnerability
Date: October 4, 2001
Source: Milwaukee Journal Sentinel

Title: Book Excerpt: Bioterror
Date: October 15, 2001
Source: ABC

Abstract: According to author Michael T. Osterholm, PhD., the question isn't whether we will face a terrorist attack with a deadly viral or bacterial weapon, but when and where — and how devastating it will be. In the following excerpt from his book, Living Terrors, Osterholm presents his prescription for what the U.S. must do as a nation to secure its freedom.

Chapter Nine: MITIGATED DISASTER

Eight Point Plan: Preparing for Terror

Whatever we do, America will remain a uniquely compelling target for terrorists.

But our lack of preparedness doubtless heightens our vulnerability to bioterror attack. So far, most of what we have done has been to react to incidents; now it is time to act, to prepare. Although the law of diminishing returns understandably limits what actions we should take in the name of prevention, there are nevertheless a few things that must be done at the federal, state, and local levels, and by each of us to make a difference. We can take steps now that could both make it harder for terrorists to commit evil and keep the damage they do from growing out of control. And we can steer the outcome of an attack from the unmitigated disaster of the Chicago scenario to the "mitigated disaster" of Milwaukee.

Below, my eight-point plan for change:

1. Stop Talking About "Weapons of Mass Destruction"

I'm not talking about conveniently erasing these weapons out of our everyday world, though it would be a miracle if such magic actually existed. No, I simply mean it's time to stop lumping all weapons that can kill large numbers of people under the single rubric of WMD. The difference in responding to bioterrorism, as opposed to a chemical or nuclear attack, is like the difference between flying a plane and driving a Formula One car. Both are moving vehicles, but very different skills are required for each one. The overuse of the term "weapons of mass destruction" has done a great deal to stunt the necessary attention to the looming threat of biological terrorism. It has allowed policy makers to throw money at the broader problem, shortchange this narrower one, and still claim to be solving the problem. As we've seen, in contrast to other forms of WMD, bioterrorism response is not primarily a military and law enforcement effort. It's a public health and medical system effort.

I don't actually expect the phrase to go away, any more than I expect the weapons to. Buzzwords are like viruses, neither alive nor dead but moving from host to host, seemingly forever. But we should all insist that policy makers acknowledge that biological terrorism is different from terrorism that relies on chemical weapons or explosives, and deserves separate consideration. That means our budgets at the federal, state, and local levels have to show proper funding for bioterrorism planning, training, monitoring, and stockpiling. In 1999, the CDC supported funding of $41 million for all 50 states and three large metropolitan areasa minuscule amount in light of the $10 billion spent on terrorism. Yet those public health and medical programs are our first, second, and third lines of defense against and in response to a biological weapons attack. To put it bluntly, our priorities are really screwed up.

Our laws should be rewritten to recognize the distinction between responding to most weapons of mass destruction and responding to a bioterrorism attack. Terry O'Brien's analysis of the gaping holes in our legal system shows issues that must be addressed before a crisis, not during one. Otherwise, when we finally do have to authorize and carry out a quarantine, valuable time will be lost figuring out who is in charge and sorting out issues of legal authority. In a bioterrorist event, loss of such time will translate directly to loss of human lives; to prevent this, I believe that the administration and Congress should appoint a bipartisan national legal panel to draw up model legislation and enact it as quickly as possible.

Removing the WMD bias is most important in the area that policy makers call consequence managementrunning the show in the aftermath of an attack. I hope I have made the point that responding to a biological attack requires an entirely different structure and management system than responding to a chemical or bomb attack. At the moment, coordination of response to WMD attacks falls to the Department of Justice and the Department of Defense. To be sure, that is the right management team for a blast or chemical release: the cops and soldiers should remain the goto guys in that kind of crisis. But

you don't want them running the show during a biological attack, any more than you would expect them to coordinate the response to an outbreak of listeriosis at a hot dog plant, Legionnaires' disease from a cooling tower, or even West Nile virus in New York City. Those crises require special skills, special knowledge, and special people all already present within the public health system. The Centers for Disease Control and Prevention has been late to recognize its potential role in biological terrorism response, and its leadership may have room for improvement, but since 1999 it has become a more active participant in the process and should be placed in charge of civilian biodefense.

2. Build the Stockpile.

Until we have a large and usable stockpile of the right antibiotics and vaccines for the most likely agents to be used in a biological attack, we're dead. Nothing can move forward until we have created this fundamental buffer between us and the abyss. Experts have been pushing for a new smallpox vaccine for three years, and seem little closer to having one than when they started. Both the administration and Congress must accept blame for a situation that has shown the worst of the federal bureaucracy. Yes, creating a stockpile involves a guessing game: a determined terrorist could well find out what agents the stockpile defends us against and hit us with an alternative. But if it means that we're able to respond quickly to an attack of anthrax or smallpox, it is well worth the effort. And yes, it will be expensive, but just a fraction of what we are currently wasting on other terrorism preparedness schemes today. It's part of the essential reordering of priorities that goes with rethinking "WMD": we must have fewer tricorder contracts and a lot more vaccines.

3. Build More "Surge Capacity"

At the moment, hospitals, pharmaceutical companies, and insurers squeeze every excess penny out of health care, performing at the limits of their capacity. It's time to open the debate over how much we're going to let economics be the single compass for directing our medical system; we need, as a nation, to build a little more slack into the system. The added capacity would have the side benefit of better preparing our health care networks for natural disasters and the still possible pandemic of influenza like the one that carried off so many millions of people worldwide at the beginning of this century. It also will be expensive but then, so are fire departments at airports. When was the last time the fire department at your nearest metropolitan airport responded to a plane crash? Still, we would never operate those airports without fire fighters on duty 24 hours a day, every day of the year. History shows us that we pay for what we think we need, and when we understand how much we need this, I'm confident we will pay for it. If we don't, we'll really pay for it.

We desperately need doctors, particularly infectious disease experts, and nurses to participate in local and regional planning activities for bioterrorism. But they almost never show up. Why? In large part, they are so stretched in their capacities to provide more patient care with less resources, they have no "financial freedom" to spend time at an all-day meeting without some reimbursement to their hospital or managed care organization. Our failure to address this is pennywise and poundfoolish.

Part of our surge capacity process will involve assembling medical teams to supplement the staffs of local hospitals and treatment centers wherever outbreaks may occur. Prior to any attacks, these professionals, who would come from the ranks of trained medical personnel nationwide, would voluntarily receive the vaccinations they need to be able to go safely into the nation's new hot zones. Although I knew it would be their job to do so, my worst nightmare when I was at the Department of Health was the prospect of forcing my staff to investigate an outbreak of smallpox in my state. As most of them have little if any immunity against smallpox, I knew it would be a death sentence. Military leaders have become experts in the unhappy business of putting people in harm's way and suffering "acceptable losses," but public health officials have not and won't ever have to if we prepare these medical teams.

We'll also need to enlist the help of mental health professionals equipped to help counsel the survivors, which could include entire cities of people whose world and lives will have been shattered by the advent of the unthinkable.

4. Shore Up the Public Health Infrastructure to Be Ready for Quick Response to Outbreaks.

This point is related to the third item, but goes further and deeper. Along with helping the people who will treat patients on the front lines, we have to strengthen the broader public health system that supports their efforts. The first major phase of the nation's new infectious disease detection program, a nine site network of monitoring and diagnostic centers (now receiving only $12 million of annual funding), must grow. The $41 million for the CDC's first grants to 53 state and local public health programs must also grow quickly. Current levels provide only very limited resources for any one state or large city, given the potential need. With our public health infrastructure in its current shape, trying to detect and respond to a bioterrorism attack is comparable to running O'Hare Airport's air traffic control system with tin cans and string.

Like the proposed buildup in surge capacity, strengthening our public health system is "dual use" in the best sense of the phrase. The improvements will be felt by the entire nation as we find ourselves better able to detect and combat natural outbreaks like foodborne pathogens, influenza, and the next West Nile virus scare. They will also help us fix problems of our own making such as the rise in antibiotic resistant strains of bacteria; there's no risk that we'll be spending money just to have a lot of people sitting around idle.

It is this reinforced public health infrastructure that will be able to respond to outbreaksnatural and manmadeby mobilizing the necessary antibiotics and vaccines and getting them to the people that need them. Building an adequate stockpile of vaccines and antibiotics won't mean much if the cache is locked in a vault in Atlanta and nobody can get it to the citizens who need it. Having to scramble to get antibiotics and vaccines to a large population isn't as rare as you might think it is. Remember the meningitis outbreak I discussed earlier, where our team was stretched to the breaking point with a need to distribute vaccine and antibiotics to only 30,000 people. It occurred under the watch of one of the best health departments in the country and it stretched us to the very limits of our ability. Now imagine needing to vaccinate millions of people!

5. Clear Up the Roles of Federal, State, and Local Governments.

Just as we need to define the roles of the various agencies across the federal government, we need to drill down through the layers of bureaucracy and clarify the roles and responsibilities on the state and local levels. Our efforts to turn around the lagging preparedness issues at the top don't automatically ensure that the same problems will be resolved at the other levels. Local police and medical teams don't have any better understanding of each other than the federal Departments of Justice and HHS do, but the federal government can help by setting a better example. Heads of federal agencies, too, can improve matters by treating the funding for biological terrorism as less of an opportunity for porkbarrel grantsmanship and more of an opportunity to help the nation head off catastrophe.

This requires leadership at every level of government. Congress has held hearing after hearing on issues of WMD terrorism over the past four years, but what leadership have they contributed? I would say very little; so far, they have added to the confusion by breaking up the field into the jurisdiction of countless committees and by providing categorical funding that doesn't guide the federal agencies to do the best work they possibly can. State officials also need to show adaptability and leadership. They invite disaster by taking the easy route and leaving these issues entirely to federal lawmakers. Like their Washington brethren, they aren't acting, only reacting. But state lawmakers can also plan ahead, funding local training programs and beefing up the disease surveillance capabilities of their own state health departments. Many states prepare their local health and law enforcement professionals for natural disasters like earthquakes and fires, discrete events that do their considerable damage in a definite span of time; it

shouldn't be hard to see the value of preparing for a manmade disaster that could cause the fullscale economic collapse that a large outbreak of contagious disease could cause.

6. Clean Up the Coverage.

Most of the press coverage of biological terrorism has been made up of scare stories, the give-'em-the-gross-details writing we like to call gorenography, and gee-whiz pieces detailing the high-tech schemes that various agencies are funding. That's a shame, because thoughtful news coverage could help keep lawmakers and agencies focused on the problems at hand, and keep them honest besides. That's the role of the press envisioned by the authors of the Constitution as key players in the national marketplace of ideas. First Amendment protection was granted to the press because the questions that journalists ask were seen as an essential part of the machinery of democracy itself. Instead, we're inundated with celebrity gossip and daily handicapping of political horse races. Today's press serves the attention deficit generation, not the needs of the nation. A few reporters have focused on the issues of biological terrorism intelligently, and with a critical eye:

Laurie Garrett's work for Newsday comes to mind, as does Richard Preston's work for the New Yorker. David Kaplan at U.S. News & World Report and Judith Miller and William Broad at The New York Times also shine a light in areas that desperately need to be seen. A single story doesn't shift the direction of the ship of state, though Preston's chilling July 1999 report on smallpox should have! But the information that top journalists like these put before the public helps inform us all and should lead to better policies and programs.

Reporters and editors also need to prepare themselves for writing about these outbreaks by learning what they can about the diseases that might be used. Reporting inaccurately that anthrax is a communicable disease like smallpox could worsen the panic in the midst of an attack. Journalists aren't agents of the government, and shouldn't be. But journalism, at its best, does serve the public interest.

7. We'll Understand It If We Actually Practice.

Most everyone can recall seeing a picture in the newspaper or video footage of the classic WMD exercise. Typically, a number of HAZMAT professionals are seen in space suits walking out of some building carrying a container. We all feel comforted to know that the government has an impressive effort for terrorism. The painful irony is that these exercises do nothing to prepare us for the eventual bioterrorist attack.

As I noted before, we have fooled ourselves into believing we're prepared to deal with bioterrorism because we have perfected our response to an event such as an explosion or release of a chemical agent. In real life, none of these players, including the FBI or other law enforcement officials, will be on the front lines when we recognize the results of the intentional release of a biologic agent. Moreover, that recognition will occur not over minutes to hours, but rather over days to weeks. In the end, it will be the emergency rooms, doctor's offices, and public health departments that will be the smoke alarms going off alerting us to the impending raging fire.

Despite this conclusion, we continue in this country to avoid preparing for bioterrorism through such activities as meaningful live drills and tabletop exercises (a type of make-believe exercise usually conducted in a single room). Why? Frankly, to unfold a bioterrorism exercise that is realistic means days to weeks of challenging health care workers, persons working in clinical laboratories, and public health officials with bits of information that appear to be unrelated. And it won't happen in a single clinic, hospital, or even geographic region. Most of all, no one will even know it happened. That's different from responding to a recognized crisis, even if you don't know why the building blew up.

For these reasons, very few communities have attempted to play out realistic scenarios involving the release of a biologic agent. Instead, we continue to fall back on exercising the classic chemical release to earn the comfort of knowing that our HAZMAT teams are in place. This is a serious mistake. **We need to begin to organize, on a regional basis, plans for addressing head-on the complexities of a one-week to several-months scenario that could mean simulating the provision of antibiotics and vaccine to hundreds of thousands of individuals and direct medical care for an equal number of critically ill patients.** These types of drills will take resources. Unfortunately, both the public health and medical care delivery systems are already stretched to the point of breaking by their efforts to provide the necessary resources for daytoday business. There isn't any flexibility in these systems to allow for the kind of exercises that will allow us to understand and address the serious deficiencies in our bioterrorism response protocols. In addition, state and federal planning efforts to date have generally neglected hospitals. While first responders, EMS, and law enforcement have become very energized about this issue, there has been very little attention paid to what needs to be done within the hospitals.

8. We're on Our Own Together

What does this leave for individuals to do? Plenty, actually. Citizens need to keep informed about what is being done in their name and to think about whether the things that are being done truly serve their interests. Then take that knowledge and use it to pressure our elected representatives at the federal, state, and local levels to do the right thing, fund the right programs, and make sound choices for the future. Each of us has to demand more accountability of our elected officials and not to confuse performances on Nightline with performance of their duties.

You might expect me to advise you to get vaccinated against the most likely diseases to be used in biological terrorism. I won't, though, because it's the wrong thing to do. Yes, we'll need the vaccines and antibiotics for the outbreaks, but not as a part of a routine program.

It goes against the simple realities of statistics. No individual in America is highly likely to be infected by a biological terrorism attack, which after all will affect only those directly exposed or, in the case of contagious diseases, those who come into contact with the initial victims. This means that the likelihood of being exposed to one of these agents for any single American is quite low, kind of like getting struck by lightning. **Moreover, getting protected against anthrax requires up to six shots, and the current smallpox vaccine has side effects that would be unacceptable to many people today, especially in light of advances made in producing vaccines with far fewer side effects for other diseases.** I worry that disease hustlers will begin encouraging people to pay top dollar to be vaccinated against anthrax and smallpox as moneymaking schemes, pitching their wares to the worried well. Marketers say that sex sells, but sex doesn't have anything on fear. Don't give in to the hype. The appropriate use of these vaccines will be in association with an outbreak, or in advance for a limited number of volunteer public health and health care workers, police, and other personnel needed to maintain our basic infrastructure support during the crisis.

Ultimately, the lesson of this book is that we can't take bugs for granted anymore (ABC, 2001).