

Foreword

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On September 11, 2001, terrorists on suicide missions flew planes into the World Trade Center and the Pentagon. A stunned, appalled country had only begun to pick up the pieces when desperately ill patients with a strange pneumonia like disease were reported first from Florida, then New York and New Jersey, and, finally, Washington, DC. Anthrax organisms were found in a white powder in some letters. Immediately, white powders, wherever they were found, became suspect. Public health laboratories were swamped with thousands of samples from all parts of the country—samples that were not at all dangerous: powdered sugar from doughnuts, powdered cleaning preparations, and white cosmetic powders. Suspicious samples resulted in buildings being evacuated and employees “decontaminated” with water from fire hoses and showers. Information about what was occurring, even for government officials, had

to be gleaned from fragmentary reports on CNN and local television. There were no clinicians who had experience in treating cases of inhalation anthrax. Major cities had no plans for implementing public health measures in response to a biological attack. In short, the country was unprepared to deal with biological weapons.

Although the country was caught unprepared, there was one deeply interested organization, the Sloan Foundation, which had already made a major commitment in October 2000 to take on the mission of reducing the threat of bioterrorism. The practical initiatives they supported over ten years transformed complacency into meaningful programs. That story is the essence of this book. The Sloan funded work along with the development of federally supported programs have fostered a significant change in a country that is still all too prone to rapidly forget and put aside unpleasant memories of past catastrophes.

My own concerns about bioterrorism began in the 1990s. At that time, fears of terrorism were stoked by Aum Shinrikyo's chemical attack on the Tokyo subway, by the 1993 bombing of the World Trade Center, and by the startling revelation that the Soviet Union had been actively engaged in creating and perfecting biological weapons, including smallpox. President Clinton was sufficiently concerned that, in 1995, he issued a Presidential Decision Directive to all US government departments alerting them to the threat of terrorism and directing them to develop programs focused on national security. As a result, first responder teams began to be established in 120 major US cities, and funds were appropriated through the Departments of Defense and Justice to strengthen police, fire, and emergency rescue operations. But no funds were directed to casualty care or public health

response. Indeed, no provisions were made at all to deal with the threat of biological weapons; the threat was ignored by most officials. In the public health and medical communities, there was antipathy toward any activity that dealt with biological weapons, even as fears of biological attacks targeting civilian populations grew. At the time, neither the CDC nor the NIH had programs related to biological weapons.

It was clear to me that to address this problem, there had to be discussion, education, and research on this subject to be conducted by a dedicated center—then called the Center for Civilian Biodefense Studies, which I founded with three colleagues in 1998. The center was conceived as a joint enterprise of the schools of public health and medicine at Johns Hopkins University. John Bartlett, then chief of the Division of Infectious Diseases, fully supported the initiative. Dr. Bartlett was also president of the Infectious Diseases Society of America (IDSA). As such, he was able to arrange on short notice a special symposium at the society's national meeting in September 1997. It attracted an exceptionally large audience. The central question we posed at the symposium was this:

If late one night you were summoned to the emergency room as the infectious disease consultant on call and asked to deal with a dying patient with a rapidly progressing severe pneumonia or one covered with pustular lesions, would you recognize the patient with anthrax or smallpox? Bear in mind that this might be one of the first cases of a developing epidemic. Would you know what to do in treating the patient or preventing spread of the disease?

Symposium participants quickly understood that they would be wholly unprepared for such a scenario. Although much was being invested in a

national program for first responders, medical and public health practitioners, the true first responders to bioterrorism, had been overlooked in planning, funding, and education.

The center had important work to do, but there was no support to be found. Foundations interested in public health turned us away because they were not interested in work related to terrorism or in the morally repugnant topic of biological weapons. Foundations focused on national security related topics thought our work belonged in the public health and health policy domains. Academic institutions did not welcome discussion of and research on biological weapons. We invited other institutions comparable to Hopkins to join us in this effort and were turned down by all.

After the IDSA special symposium, my center colleagues and I traveled the country to give invited presentations at other meetings and conferences. We next decided to convene a national symposium on bioterrorism, specifically targeted to the public health and medical communities. Nothing like this had been held before, and we wondered how we would fill a hall that seated 1,000 people. Notices and publicity began in November 1998, only eleven weeks before the symposium. The center was new and unknown, and interest in the subject itself was uncertain. However, one week before it was to begin, we found we had to turn people away. Nevertheless, despite the success of the symposium, foundations continued to turn down our proposals and resources began to run out.

That changed after a personal meeting in New York with Ralph Gomory, then president of the Sloan Foundation. It was immediately clear that we shared similar concerns. He invited me to submit a proposal, and we submitted a generous one that was fully funded within weeks. One of the

Hopkins center's first joint efforts with Sloan was the simulated exercise *Dark Winter*. It was dramatically effective in acquainting key political leadership with the potentially dire consequences of a smallpox virus attack. Senator Sam Nunn played an especially important role in the exercise and then took it upon himself to brief both House and Senate leadership on the implications of a biological weapons attack. The last briefing in the Senate occurred in early September 2001, just days before 9/11.

After 9/11 and the anthrax letters that followed, the US government acted quickly. In November 2001, a new Office of Public Health Emergency Preparedness was created in the Office of the Secretary of HHS. Two months later, a special appropriation of more than \$3 billion was provided to HHS to develop a program for civilian preparedness and response to a serious biological threat posed by a terrorist or by nature.

Soon after, others joined the Sloan Foundation and the center in the effort to build US biosecurity. It has been a long road from complacency to where we are today, and much has been accomplished along the way. Unquestionably, the country is better prepared now to deal with a biological weapons attack and with other large scale hazardous events.

But I should temper that statement and rewrite the sentence to say “was better prepared.” In 2012, as this book is being written, federal budgets for public health preparedness are once again being significantly reduced for states, counties, hospitals, and the CDC. Public health laboratories are losing staff; epidemiologist positions have been cut; community liaisons who help mobilize schools, industries, and health departments are leaving. Memories of events like the anthrax attacks, Hurricane Katrina, pandemic influenza, and SARS are fading rapidly.