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# The Challenge of Biological Terrorism



Anthony H. Cordesman

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# **THE CHALLENGE OF BIOLOGICAL TERRORISM**

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## PREFACE

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Biological terrorism poses a threat that is all too real. Already some in a series of low-level and attempted biological weapons and toxin attacks have had marginal success. The most serious incident was the series of anthrax attacks the United States faced during September–November 2001 in New York; Washington, D.C.; and Lantana, Florida. Anthrax-tainted letters and parcels were sent to U.S. senators and media figures like Tom Brokaw, and they killed 4 Americans and infected a total of 18. Today, some four years after the events, the United States still has not been able to identify the attacker.

These attacks illustrated the need to develop effective methods of defense and response. A recent presidential commission noted that the United States was fundamentally unprepared for such attacks:

For many years, the U.S. intelligence and policy communities did not take the biological weapons threat as seriously as the dangers posed by nuclear weapons. Many felt that states might experiment with biological weapons, but would not use them against the United States for fear of nuclear retaliation.

Similarly, terrorists who promised to bring “plagues” upon the United States were thought to be merely indulging in grandiose threats; they lacked the technical expertise to actually develop and deploy a biological weapon.

These views changed suddenly in September and October of 2001 when anthrax attacks in the United States killed five people,

crippled mail delivery in several cities for over a year, and required decontamination efforts costing more than \$1 billion. The still-unresolved attack was striking in its asymmetry: the anthrax could have been produced for less than \$2,500.

Even more striking is how lucky we were. A determined terrorist group could do far worse with only a little more effort and a bit of luck. Even allowing for imperfect dissemination techniques, if a gram of the same anthrax used in the 2001 attacks had been disseminated outdoors in an urban area, between 100 and 1,000 people would likely have been infected, and many would have died.

A kilogram might infect tens of thousands of people. And because biological weapons have a delayed effect, terrorists could execute multiple or campaign-style attacks before the first attack is even noticed and the warning sounded.

We are concerned that terrorist groups may be developing biological weapons and may be willing to use them. Even more worrisome, in the near future, the biotechnology revolution will make even more potent and sophisticated weapons available to small or relatively unsophisticated groups.<sup>1</sup>

The politics and ideology of terrorism continue to remove the past limits to the levels of violence that terrorists are willing to use. While some terrorists still have well-defined political objectives and use force largely in an effort to achieve their objectives, groups of religious extremists, for example, can attack for ideological reasons not tied to negotiable goals or to any limits on their willingness to attack populations and innocent targets. Such eschatological movements can justify any level of force, risk, and sacrifice and can make killing an end in itself.

Such threats are also global. Although full details are classified, captured Al Qaeda records show clearly that Islamic extremists and terrorists have an interest in acquiring biological as well as chemical and nuclear weapons. Great Britain has found the elements of preparations for ricin attacks, and a number of other European and Asian countries have found evidence of terrorist interest in such weapons.

Truly lethal biological attacks still present many technical challenges, but the ease with which bioterrorism can be put into practice is growing, and lethality is only one measure of success. The political, economic, and psychological impact of bioterrorism can easily impose costs far exceeding the number killed or injured.

The Internet provides a growing list of sites, in a wide variety of languages, that claim to provide literature on the manufacture of biological agents and toxins. The dissemination of biotechnology and of dual-use food processing and pharmaceutical equipment is steadily expanding the range of options for producing and weaponizing biological agents.

Concurrently, biotechnology is advancing the range of agents that can be used. Genetic engineering is moving from cutting-edge science to commercial practice, immune and semi-immune strains of major diseases are becoming more common, and new approaches to bio-weapons—attacking human immune systems, for example—are becoming practical. The worst cases for biological warfare are becoming more possible, and their results can be truly grim.

A biological attack could also come with little or no warning. The National Intelligence Council recently surveyed a group of international experts on the threats that would develop between now and 2020, and the report reached the several conclusions:

Most terrorist attacks will continue to employ primarily conventional weapons, incorporating new twists to keep counterterrorist planners off balance. Terrorists will probably be most original not in the technologies or weapons they employ but rather in their operational concepts—i.e., the scope, design, or support arrangements for attacks.

One such concept that is likely to continue is a large number of simultaneous attacks, possibly in widely separated locations. While vehicle-borne improvised devices will remain popular as asymmetric weapons, terrorists are likely to move up the technology ladders to employ advanced explosives and unmanned aerial vehicles.

The religious zeal of extremist Muslim terrorists increases their desire to perpetuate attacks resulting in high casualties. Historically,

religiously inspired terrorism has been most destructive because such groups are bound by few constraints.

The most worrisome trend has been an intensified search by some terrorist groups to obtain weapons of mass destruction. Our greatest concern is that these groups might acquire biological agents or, less likely, a nuclear device, either of which could cause mass casualties.

Bioterrorism appears particularly suited to the smaller, better-informed groups. Indeed, the bioterrorist's laboratory could well be the size of a household kitchen, and the weapon that could be built there could be smaller than a toaster. Terrorist use of biological agents is, therefore, likely and the range of options will grow.

Because the recognition of anthrax, smallpox, and other diseases is typically delayed, under a "nightmare scenario," an attack could well be under way before authorities would be cognizant of it.<sup>2</sup>

The fact remains, however, that anyone approaching the subject of bioterrorism still has to be extremely careful about crying "wolf." The fact that a threat exists does not define its probability; the priority it should be given; the kind of response that is needed; or the level of investment in time, expertise, and money that is required. It is all too easy to cry "wolf" in a post-9/11 world, but the risk of biological terrorism is only one form of terrorism among many, and only one risk among thousands of risks that affect humans.

All societies have in common a shortage of resources relative to perceived needs. No matter how dramatic a threat may seem, or how lethal it might be, trade-offs must be made. Triage is just as essential for counterterrorism as it is for medicine and public health policy. In a world where car and truck bombs can kill more than 100 people without warning on a crowded street and where many other priorities compete for government action, one has to be extremely careful about giving any one threat priority over the others, and even more careful about what to call for in terms of public policy. The years since September 11, 2001, have shown that it is far easier to throw money at a problem than it is to solve it, and it is far easier to focus noisily on the worst case than it is to produce credible risk assessments.

**Notes**

<sup>1</sup> *Report to the President of the United States* (Washington, D.C.: Commission on the Intelligence Capabilities of the United States Regarding Weapons of Mass Destruction, March 31, 2005), pp. 502–503, [www.wmd.gov/report/wmd\\_report.pdf](http://www.wmd.gov/report/wmd_report.pdf).

<sup>2</sup> National Intelligence Council, *Mapping the Global Future: Report of the National Intelligence Council's 2020 Project*, Report no. NIC 2004-13 (Washington, D.C.: CIA, December 2004), p. 95, [www.foia.cia.gov/2020/2020.pdf](http://www.foia.cia.gov/2020/2020.pdf).

