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Assessing the Threat of Biological Terrorism: Hype or Imminent Danger?

Ever since the October 2001 anthrax attacks in US, there has been much policy attention, public discourse and allocation of resources to the scourge of biological terrorism. The United States government, for example, has spent at least some US$33 billion to combat bio-terrorism while countless policy papers as well as significant amounts of policymakers' time have been devoted to strategizing the response needed to effectively counter the threat.

That said, six years on since those attacks, there has been an increasing wave of counter-opinion that suggests that perhaps the initial worry over biological terrorism may have been somewhat overstated. Milton Leitenberg, author of the book, *Assessing Biological Weapons and the Biological Threat*, has argued that "the risk that terrorists will use biological agents is being systematically and deliberately exaggerated". From a national security perspective, given that funds are finite, an over-allocation of resources to one particular issue may well leave other aspects of a diverse spectrum of national security threats dangerously unaddressed. There is thus a need for a proper risk assessment of the so-called "bio-terrorism hype". But before this article does that, it is important to first delineate what exactly is biological terrorism.

Biological Terrorism: A Primer

Biological terrorism, simply defined, refers to the deliberate release or dissemination of biological agents such as pathogens, viruses and germs into the environment to cause illness or death amongst people, animals or plants. These agents are typically propagated through air, water, or in food and can exist in either naturally-occurring or in a human-modified form.

Historically speaking, the usage of biological agents as weapons has been a persistent feature. In the 6th century BCE, for instance, the Assyrians corrupted enemy wells with a fungus that would make the enemy delusional, while the Athenians used the poisonous herb Veratrum to poison the water supply of Phocaea during the siege of that city. Moreover, during the Middle Ages, corpses or the excrement of victims of the bubonic plague were unceremoniously flung over enemy city walls, with the intention of spreading the disease amongst the enemy populace. During World War II, the Japanese Imperial Army used biological weapons against Chinese solders and civilians. Then in 1984, members of the Buddhist cult group, Rajneeshee, conducted what is arguably the first known bio-terrorism attack on US soil: they infected salad bars in eleven restaurants; produce in grocery stores; as well as other public

domains, with the *Salmonella* bacterium in the city of Dalles, Oregon, causing some 751 people to fall ill. The October 2001 anthrax attacks, in that sense, are certainly not new.

So How Real is the Threat?

There is no doubt that biological terrorism is a threat, given that it has the potential to inflict mass casualties and chaos in any society. What is particularly invidious about biological terrorism and sets it apart from its "CBRN" counterparts of chemical, radiological and nuclear terrorism, is that it has no "crime scene" and its impact may not be felt until days or even weeks later, by which time, the virus could have already been well-propagated throughout the target community. In the case of the Rajneeshee attacks, it was *more than a year* before the authorities ascertained that the infection had been deliberately spread. A biological attack is thus difficult to detect, especially if the perpetrators intended it that way.

Furthermore, many diseases such as plague and smallpox have lengthy incubation periods (an average of 2 to 3 days and 12 days respectively) in which it may take a while before visible symptoms manifest. With flight timings between any two cities now virtually less than 36 hours, carriers of pathogens with longer incubation times—whether terrorists or unwitting victims of the terrorists—could very well transport the pathogens around the world—unnoticed.

Meanwhile, it is also evident that terrorists have been demonstrating a keen interest in acquiring or developing biological weapons. For instance, handwritten documents detailing the usage of biological agents were uncovered in a Al-Qaeda training camp in Kabul while a Jihadist manual unearthed in the Philippines evinced a Jemaah Islamiyah (JI) interest in biological weapons.[1] There is also the 11th volume of Al-Qaeda's *Encyclopedia of Jihad* which expressly talks about biological and chemical terrorism.

A Risk-Based Analysis

Given the historical precedents, the danger that it presents and the evident interest shown by terrorist groups, it is clear that biological terrorism represents a national security threat. That said, this does not mean that a biological attack is brewing across the horizon. From the perspective of risk, the threat of biological terrorism represents more of a possibility rather than a probability. In other words, while a biological attack is certainly *possible*, it may not be *probable*. The key reason being that: while up to this point terrorists have evinced a clear intent in pursuing biological terrorism, they have not exhibited a marked improvement in terms of technical capabilities. Weaponization of biological agents—"going from the organism to a mechanism that is particularly suitable for distribution"—has proven to be difficult for terrorists at the present moment.

Conclusion

To sum up, the threat of biological terrorism is definitely not hype; it is clearly real. The fact that incidents involving biological weapons have been a persistent phenomenon throughout history as well as the fact that terrorists have more than shown a passing interest in weaponizing dangerous biological agents – are telling reminders that the threat cannot be simply swept under the rug of fantasy. That said, biological terrorism should also not be viewed in an overly alarmist fashion, as if the threat is imminent. A more useful and constructive approach would be to focus on *why* terrorists have not been able to exercise their bio-terrorism intent as often as they would have liked – and deliberately strengthen those factors that are clearly restraining their bio-terrorism capabilities.

[1] For both cases, other than biological agents, chemical agents were also being mentioned.