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Civil Preparedness for bio-weapons (BW) terrorism  
Brief oral presentation

The dissolution of the Soviet Empire and the refinement of our military technology have vastly altered the security environment of the United States. Our forces in place have obliged our potential adversaries to avoid confrontation on discernable battlefields, and to seek asymmetric strategies to avoid defeat upon headon collision.

Biological weapons -- germs -- deployed against symbolic targets, troop barracks, and real-valued ones like ports of assembly and cities, are almost ideally suited for that aim.

1) With respect to major bio-attacks by state interests, our principal bulwark is deterrence. The main challenge is the credibility of our resolve to respond, and the cementing of a coalition dedicated to the enforcement of BW disarmament. That requires more work to win the minds and hearts of our friends, as well as to define and lay down the law for the culprits. These may be the most vital steps; probably beyond the scope of these hearings.

2) Deterrence is futile against unattributable groups or "crazies". BW can be delivered by clandestine vehicles, man- or truck- or boat- mounted sprayers, and use prepositioned stockpiles measured in pounds, not tons. A major attack might hide below our "radar screen" of epidemic awareness for hours, if not days. Who then is the target for our revenge? Undeviating reliance on deterrence also leaves us open to provocation and disinformation from culprits and third parties, to elicit responses that discredit our legitimacy, or even to catalyze war between tensely positioned states. Consider the interference with the peace process in Israel on the part of Hamas.

Nevertheless, it is smaller groups who are most likely to resort to BW even if they lack access to unlimited resources from a mobilized state sponsor.

3) Such smaller groups, which I will define as operating on a budget of \$1 million or less, still have readily achievable but limited capabilities. Not enough attention has been paid to "soft kill" of urban targets, even while there has been some hyperbole about the ease of a "hard kill" of a city.

For example, no one disputes that a scenario which achieved 1000 to 10,000 mortal casualties in a metropolitan area is entirely feasible. What has been underestimated is the terror this would induce, while the seeds of infection were germinating and spreading. In the wake of such an attack, 100,000 to 1,000,000 would be at risk even according to rational calculus; and this could be amplified further by rumor and panic soon after the earliest cases came to notice. Hence even such "limited" attacks demand preparations for managing situational

awareness, diagnosis, prophylaxis and treatment for up to a million people: it will be very difficult to know exactly who has been exposed, in time to intervene.

The public health infrastructure is the most important component; but this has to be designed and exercised to coordinate with all other elements of emergency management: public information, law enforcement and, if need be on such a scale, support from forces that can be mobilized under military discipline. Besides the structural arrangements would be provision for materiel: diagnostics, antidotes, hospital support equipment -- including improvised beds, shelter and isolation, and so forth.

A brutal calculus might infer that is is demanding an investment of thousands of dollars per life actually saved; and this has to be qualified further by the (un)likelihood that such attacks will really eventuate. My answer is that this scale of investment is within the bounds of other prophylactic programs. But also that the penalty of a successful attack goes beyond the lives lost. It will be an example for others, inviting multiplied problems. It will discredit the sensitivity and competence of government. The secondary damage from chaos and panic may exceed the primary kill, including, may I say, the deterioration of the taxes that can be collected on uninhabitable properties. The secondary gains from a preparedness program include a form of deterrence against culprits, offering less obviously naked targets. Hence their incentive to use this mode of attack is lessened. And the same mobilization capacity will ready us to mitigate acute pandemics from natural infections like the 1918 influenza which killed a half-million American citizens.

Navy Secretary Richard Danzig has characterized bioweapons as "Weapons of Mass Disruption", and for this, most likely level of attack that is the appropriate perspective, and should guide our priorities in allocating resources for the defense of our cities.

Over a longer period of time, we can enhance our defenses by attention to R&D for innovative diagnostics and treatments, as outlined in a recent IOM report.