



The Biological Weapons Threat

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What renders terrorism a crisis in the 21st century is the fact that never before in history have so few possessed such a capability to cause catastrophic harm on a global scale.

M.E.Bowman, FBI
Intelligencer, 2003

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While conventional conflicts will still be possible, the most serious threat to our security may consist of unannounced attacks on American cities by sub-national groups using genetically engineered pathogens

US Commission on National Security, 1999

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WMD--comparisons

- Nuclear
 - Complex, sophisticated production
 - Scientific expertise needed
 - Costly
 - Difficult to deliver
 - Immediate recognition if used
 - First responders
 - Repeat use (recharge) unlikely

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WMD comparisons

- Chemical
 - Major event requires large quantities
 - Production and transport difficult
 - Event is recognized immediately
 - First responders – fire, emergency response
 - National network of hazmat teams
 - Regularly exercised for spills and leaks
 - Poison control centers and laboratories

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WMD comparisons

- Biological
 - Small quantities = possible catastrophes
 - Acquisition and production – not difficult
 - Possible purchase from Russia source
 - Little experience in detection or control
 - Implications of “recharge”

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Class A agents

Transmissible from man to man

- Smallpox
- Plague
- Hemorrhagic fever viruses

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Class A agents

- Not transmissible from man to man
 - Anthrax
 - Botulinum toxin
 - Tularemia

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Anthrax – now the biggest problem

- Key factors for use
 - Accessibility
 - Quantities required
 - Possible strategies
- Detection methodologies
 - Intelligence
 - Biowatch
 - Syndromic surveillance

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Anthrax -- strategies

- Response
 - Detection in Emergency Rooms
 - Antibiotics – ? 60 days or 100 days
 - Combined with vaccine – 40 days
 - Treatment – ventilators and therapies
 - Environmental cleanup ?
- Prevention
 - Vaccine
 - Filtration systems

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