REVIEW BROAD ASPECTS OF THE BIODEFENSE PROGRAM – PROVIDING A BACKGROUND FOR QUESTIONS AND DISCUSSION
**Biodefense:** A key part of the U.S. government’s overall homeland security effort. Its purpose is to improve the nation’s ability to defend itself against bioterrorism, the deliberate use of microorganisms or toxins derived from living organisms to induce death or disease in humans, animals, or plants. Biodefense aims to prevent the development and use of biological weapons as well as assuage the human suffering that would result if prevention fails.
Bioterrorism: The deliberate use of microorganisms or toxins from living organisms to induce death or disease. Biological and chemical agents that could be used include anthrax, smallpox, West Nile virus, cholera, ebola, dengue fever, botulism, Lyme disease, pneumonia and tuberculosis.
Essential Pillars of Biodefense*

- Threat Awareness
  - Biological Warfare Related Intelligence
  - Assessments
  - Anticipation of Future Threats
- Prevention & Protection
  - Proactive Prevention
  - Critical Infrastructure Protection
- Surveillance & Detection
  - Attack Warning
  - Attribution
- Response & Recovery
  - Response Planning
  - Mass Casualty Care
  - Risk Communication
  - Medical Countermeasure Development
  - Decontamination

Biodefense Command Structure

- Domestic incident management
- Coordinating domestic Federal efforts to prepare for, respond to, recover from biological weapons attacks
- Threat assessment
- Critical infrastructure protection
- Biodetection technologies
- Decontamination methodologies
- Integration of attack warning
- Technical forensic analysis
- Response planning
- Coordinating Federal assets supporting non-health-related response to mass-casualty events
- Risk communications

- Preparedness efforts to anticipate and respond to emerging biological weapons threats
- Coordinating Federal assets supporting health response to mass-casualty events
- Research to develop medical countermeasures
- Research for novel & genetically engineered biological weapons agents
- Research for scenarios that could require broad-spectrum countermeasures
- Test & evaluation, assessment, and support for production of countermeasures
- Stockpiling of medical countermeasures

- International bioterrorists incidents that occur outside the US
- Coordinating with other Federal agencies
- Requesting military support
- Proactive prevention

- Support international response, if requested
- Proactive prevention

- Proactive prevention

- Proactive prevention

- Decontamination
National BioDefense Programs Coverage

Example of Programmatic Penetration

Potential Infections: Exposure

Incubation

Epidemic (Symptoms)

Outcomes (Casualties/Fatalities)

Prevent

Warn

Protect

Contain / Decon

Treat

Intel

Facilities

Wide area monitoring

Restoration

Early diagnostics

Transport

Portable detection

Public Health & Medical Care Orgs.