

# An End-End Quantitative Approach for Estimating Bioterrorism Risk in the Department of Homeland Security

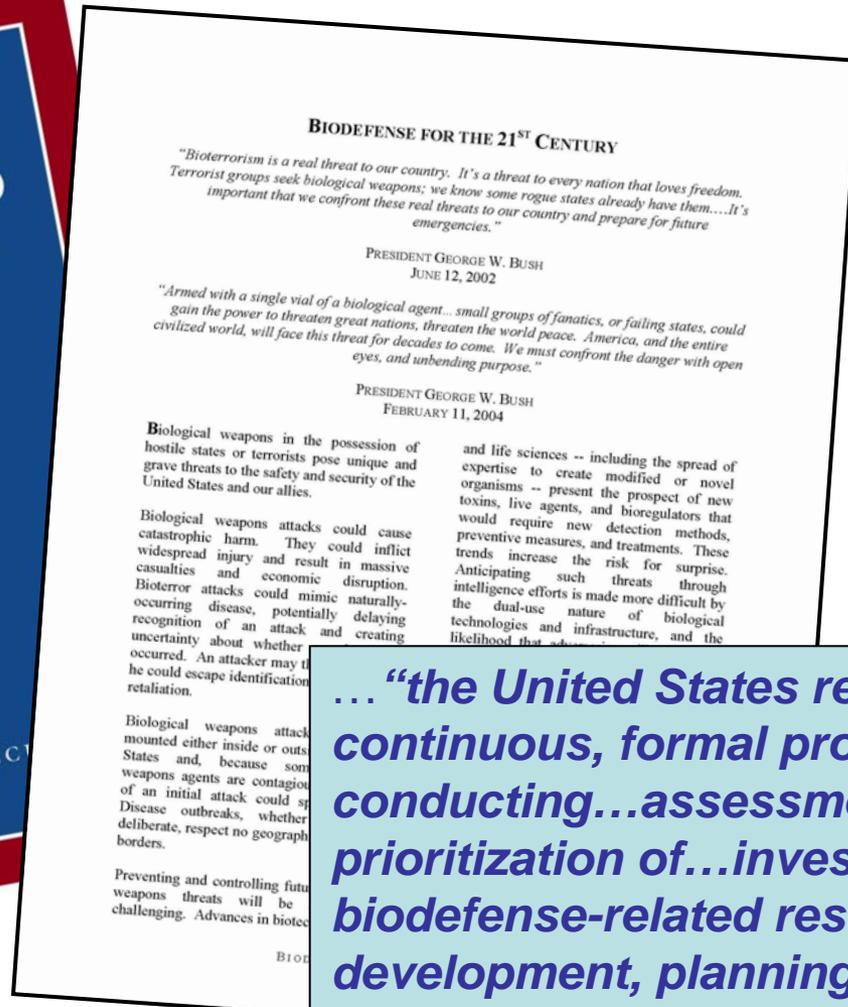
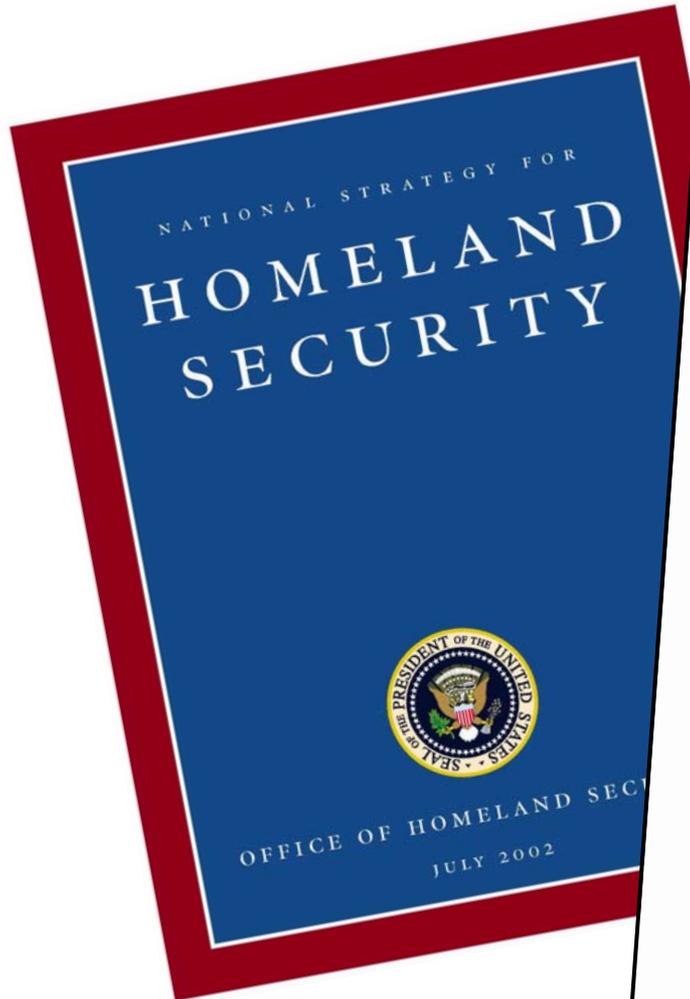
University Programs Summit

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Homeland  
Security

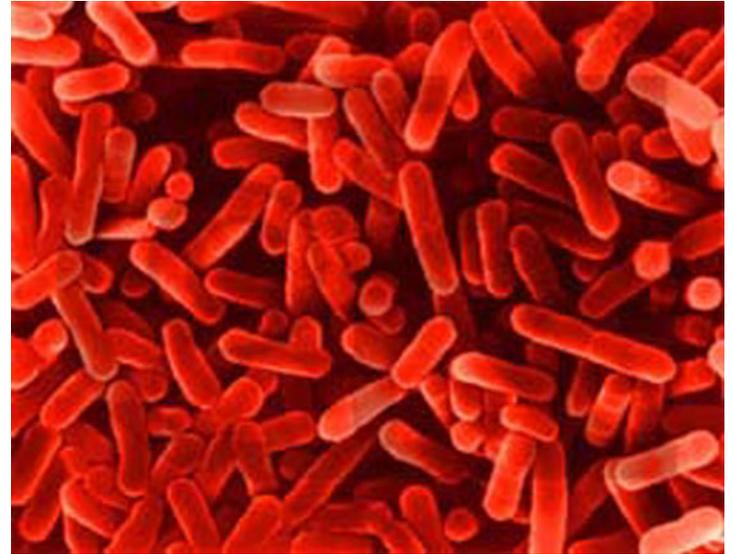
# Bioterrorism Risk Assessment Requirements in the Department of Homeland Security



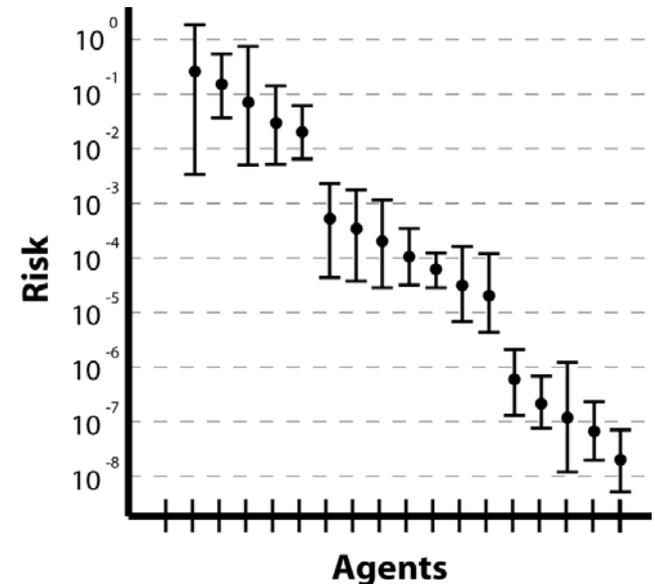
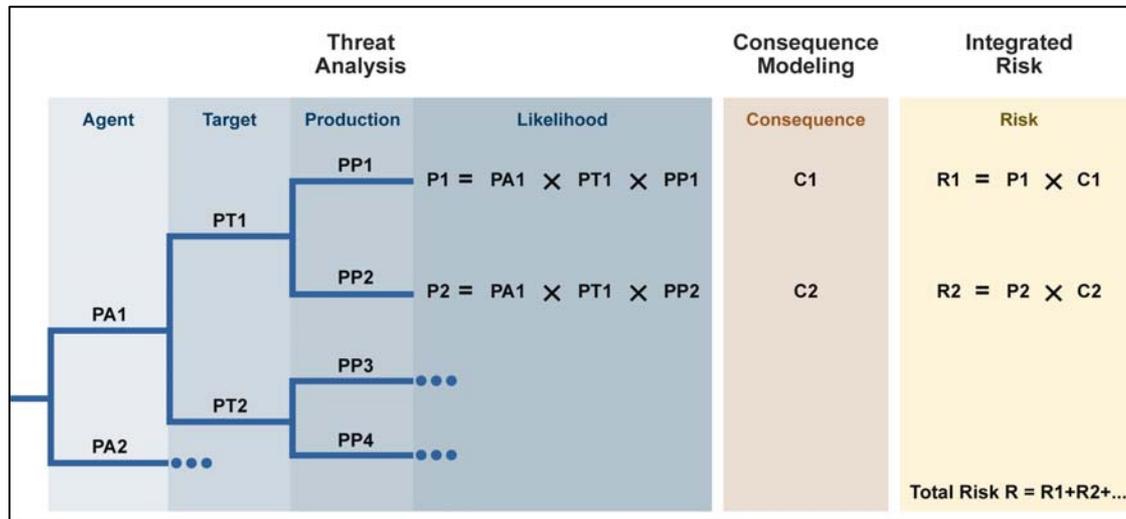
... "the United States requires a continuous, formal process for conducting...assessments to guide prioritization of...investments in biodefense-related research, development, planning, and preparedness."

# DHS Bioterrorism Risk Assessment (BTRA) Scope

- Potential bioterrorism agents
  - 38 Human pathogens
  - 5 Livestock pathogens
- Millions of enumerated scenarios
  - Aerosol (indoor and outdoor)
  - Food and water contamination
  - Human vector
  - Transportation
- Intelligence-community elicited probabilities
- Physically-based consequence modeling
  - Fatalities, illnesses, economic impacts (direct and indirect)



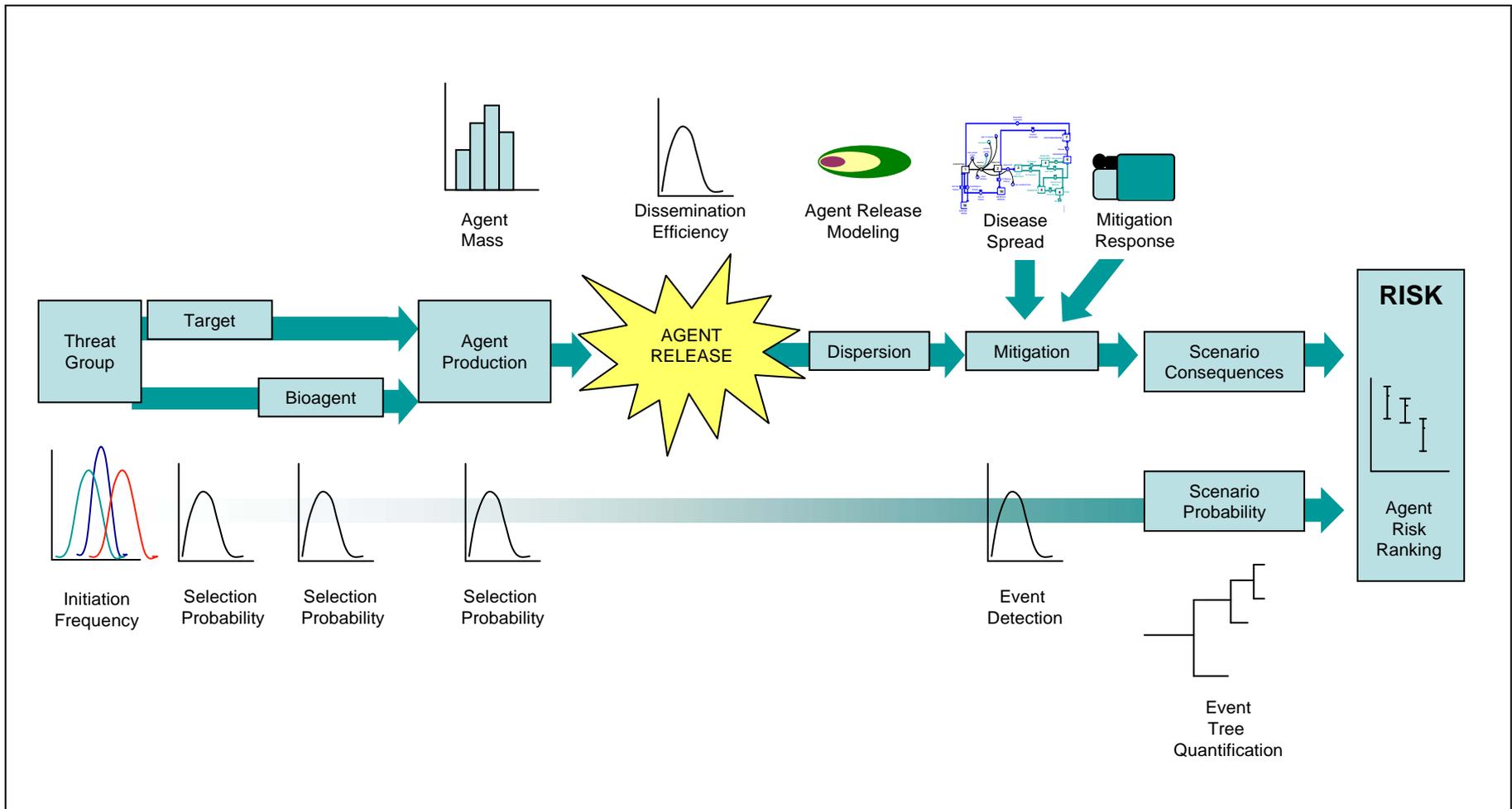
# Bioterrorism Risk Assessment (BTRA)



- Required by HSPD-10; first assessment delivered to HSC in January, 2006. Updated assessments are due every two years.
- 2008 update scheduled for delivery 21 March 2008 – many significant expansions and improvements.



# A Quantitative, End-to-End Approach to Estimating Bioterrorism Risk





# Homeland Security



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