# **Center for Biosecurity**

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# Medical Countermeasures for Biosecurity Threats: Opportunities for the Congress

"Our greatest concern is that terrorists might acquire biological agents, or less likely, a nuclear device, either of which could cause mass casualties." *Mapping the Global Future* – Report of the National Intelligence Council's 2020 Project, Jan. 2005

## **Bioterrorism is a Strategic Threat to the United States**

- Biological weapons have the potential to be highly lethal
- There are no technical barriers to a non-state actor developing a biological weapon
  - All knowledge and technologies are accessible, inexpensive, dual-use, easily hidden
- Biological weapons have strong appeal as asymmetric weapons
  - No need for a "super-power" grade weapon
  - Al Qaeda and other non-state groups have clearly expressed interest in them
  - Unlike nuclear weapons, pathogens have no "return address," so little to hold at risk
- The power of biological weapons is linked to the upwards trajectory of global bioscience in 21st century – biological research must proceed, but also must be aware of risks
- The United States does not currently have sufficient medical countermeasures to respond to the majority of biosecurity threats – robust effort & investment required

### **Developing Medical Countermeasures**

#### Countermeasure Development: Long, High Risk, & Expensive

Basic Research (Years)	"Lead" Discovery (6-24m)	Preclinical Dev. (30-36m) IND	Clinical Trials & FDA Approval (54-60m)	Production FDA
			-12+ Years, \$400 vaccine development	

#### **Opportunities for the Congress**

- 1. Fund BARDA advanced development activities appropriately
  - \$1.07B authorized for FY06-08 in PAHPA (PL 109-417)
  - Only \$99M appropriated to date
  - FY08 L-HHS conference report has \$149M Large gap in funding
- 2. Enable and support risk tolerance at HHS/BARDA
  - There will be future contract and product failures the nature of drug development
  - HHS needs freedom to operate excess caution has unintended negative consequences
- 3. Education of HHS, Congress, Private Sector
  - Each stakeholder needs a better understanding of the others to enable success
- 4. FDA Priority Review Vouchers to Reward Development of Medical Countermeasures
  - Vouchers would have limited social/indirect costs potential for high value to developer
  - PRV for tropical diseases in 2007 FDA Act (PL 110-85) expand to biosecurity threats