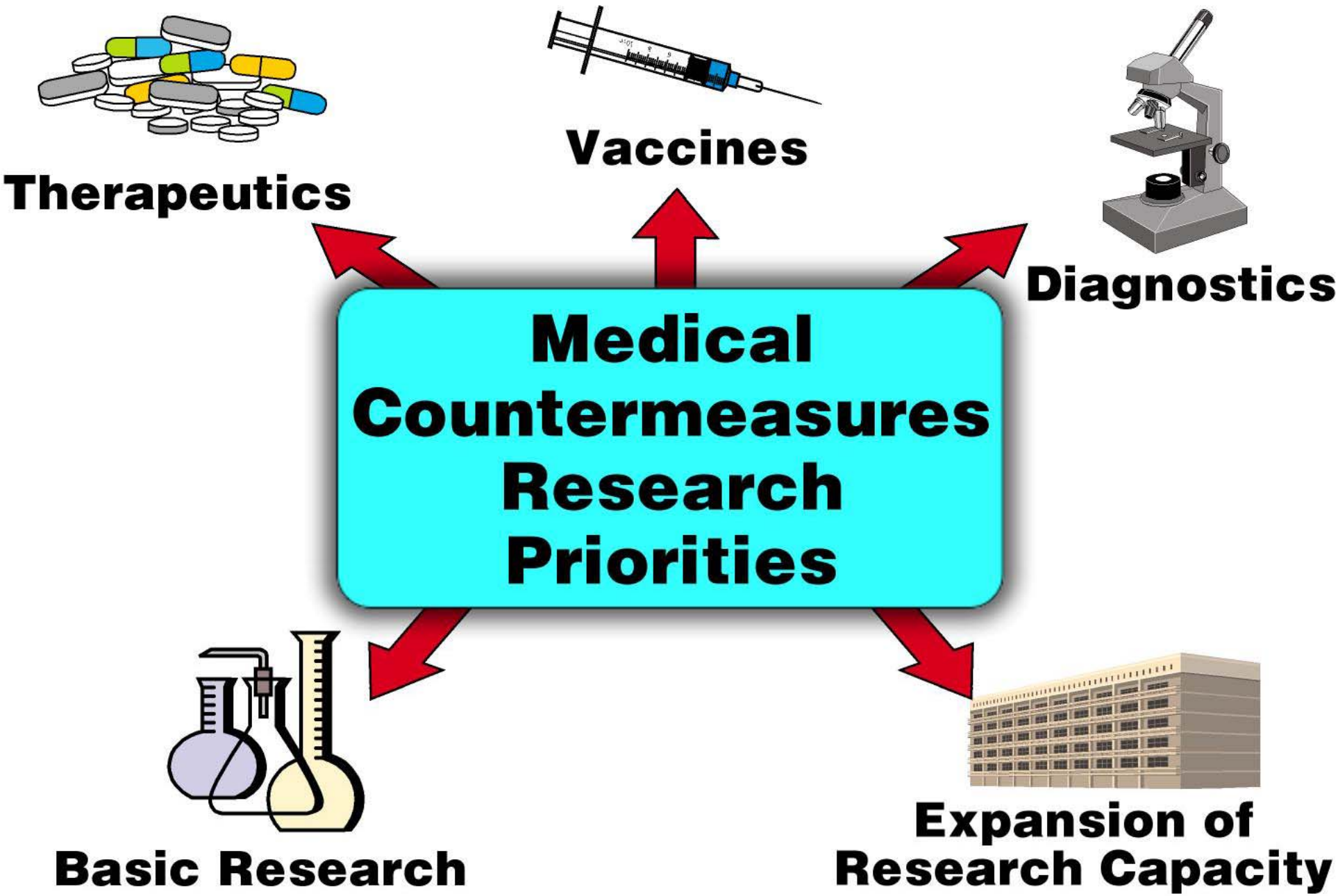
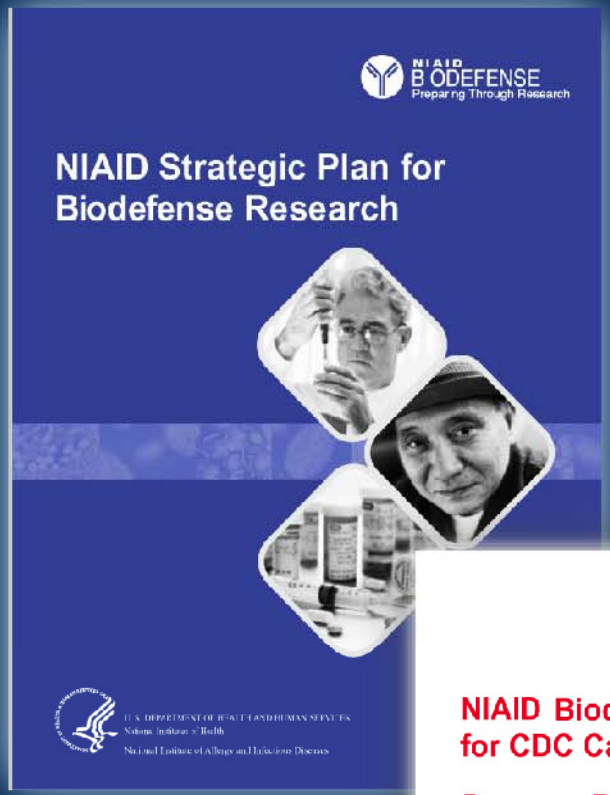
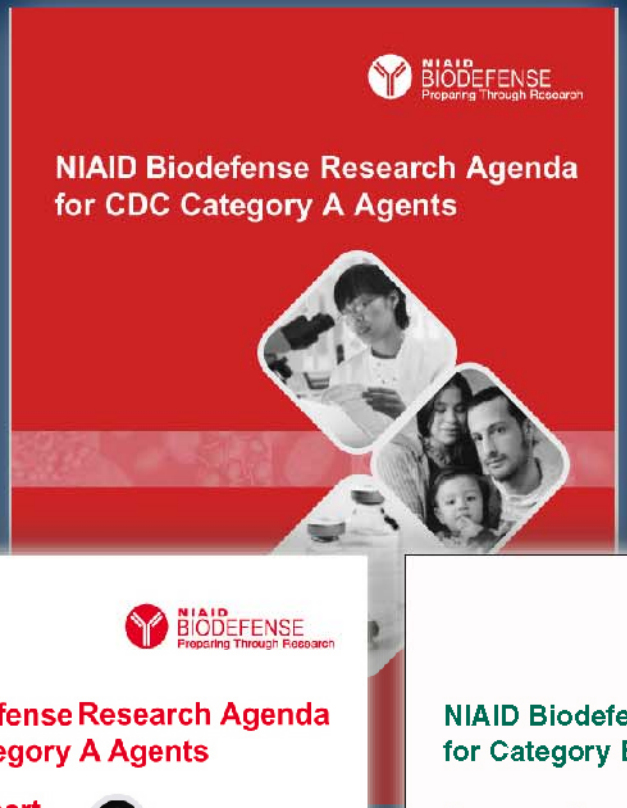
NIH Medical Countermeasures Research

- Biodefense Countermeasures
- Radiological and Nuclear Countermeasures
- Chemical Countermeasures


Therapeutics
Vaccines
Diagnostics
Medical Countermeasures Research Priorities
Basic Research
Expansion of Research Capacity


NIAID
BIODEFENSE
Preparing Through Research
NIAID Strategic Plan for Biodefense Research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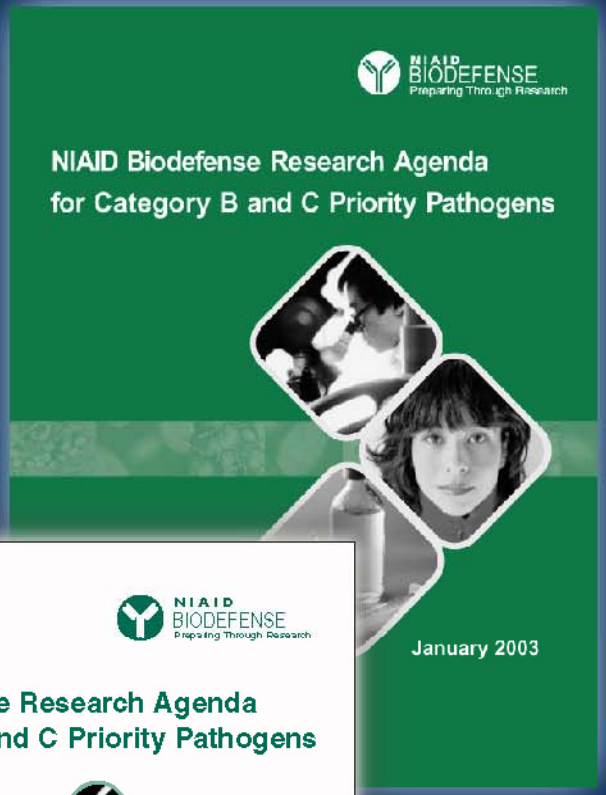
NIAID Biodefense Research Agenda for CDC Category A Agents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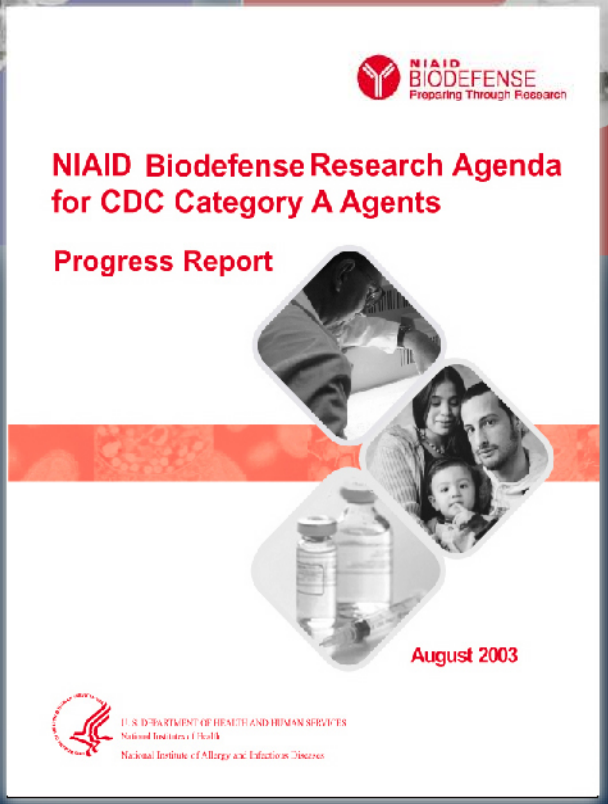
January 2003


NIAID
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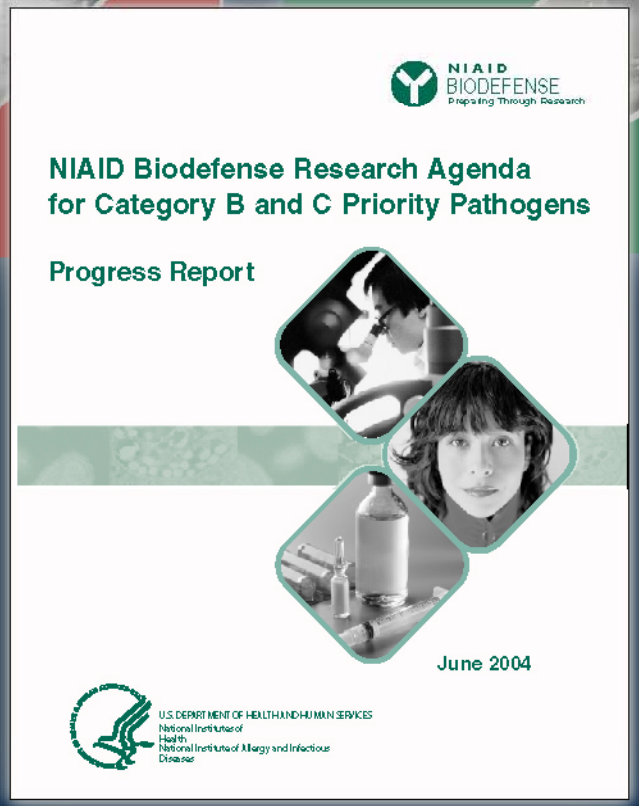
NIAID Biodefense Research Agenda for CDC Category A Agents
Progress Report
August 2003
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Institute of Allergy and Infectious Diseases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Progress Report
June 2004
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Biodefense Countermeasures: Key Achievements

Smallpox

- More than 300 million doses of smallpox vaccine now available
- "Next-generation" vaccine (MVA) in advanced testing
- Antiviral drug development, e.g. oral cidofovir

Anthrax

- New vaccine (rPA) tested and procured under Project Bioshield
- Development of novel antitoxins, e.g. monoclonal/polyclonal antibodies

Biodefense Countermeasures: Key Achievements (continued)

Ebola

- Vaccine in human trials at NIAID Vaccine Research Center

Botulinum Toxin

- Development of vaccine and monoclonal/polyclonal antibodies

Influenza

- Development of vaccines against potential pandemic strains

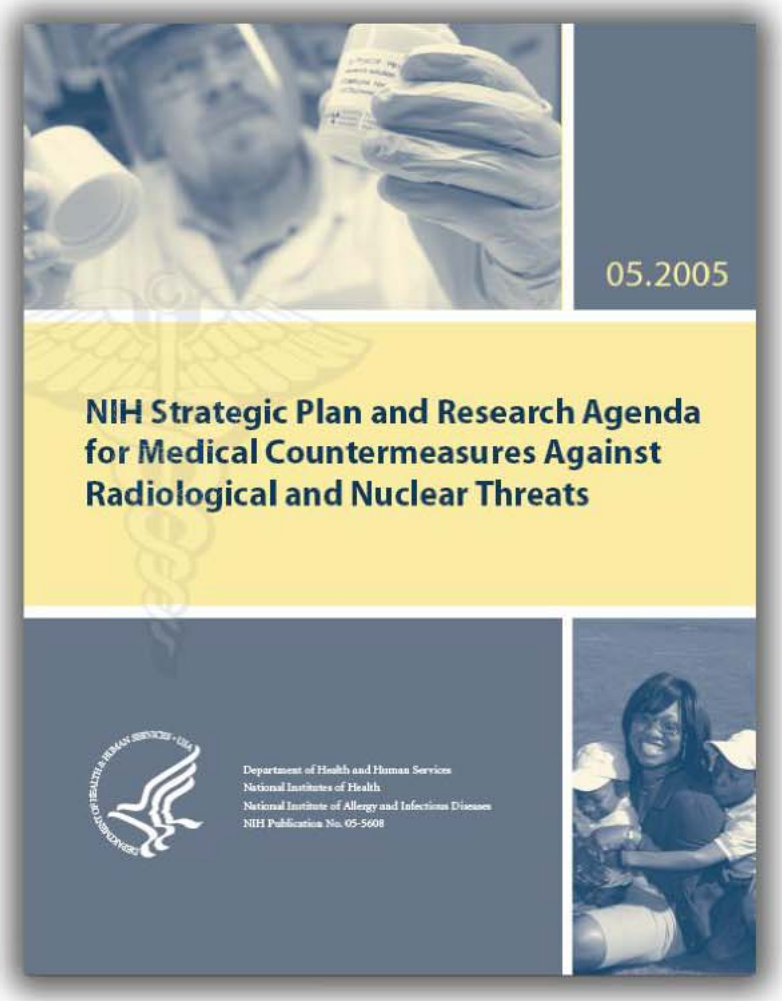
Radiological/Nuclear Countermeasures: Research Goals

Immediate

- Facilitate the licensure of drugs in the Strategic National Stockpile by developing animal models and assays
- Develop Centers of Excellence in Radiobiology Research

Intermediate/Long-Term

- Develop broadly acting safe and effective radioprotectant and therapeutic drugs
- Develop biodosimetric tools and bioassays to evaluate radiation injury
- Address critical gaps in understanding mechanisms leading to injury induced by ionizing radiation
- Support stem cell research effort toward reconstitution of immune system following radiation-induced injury



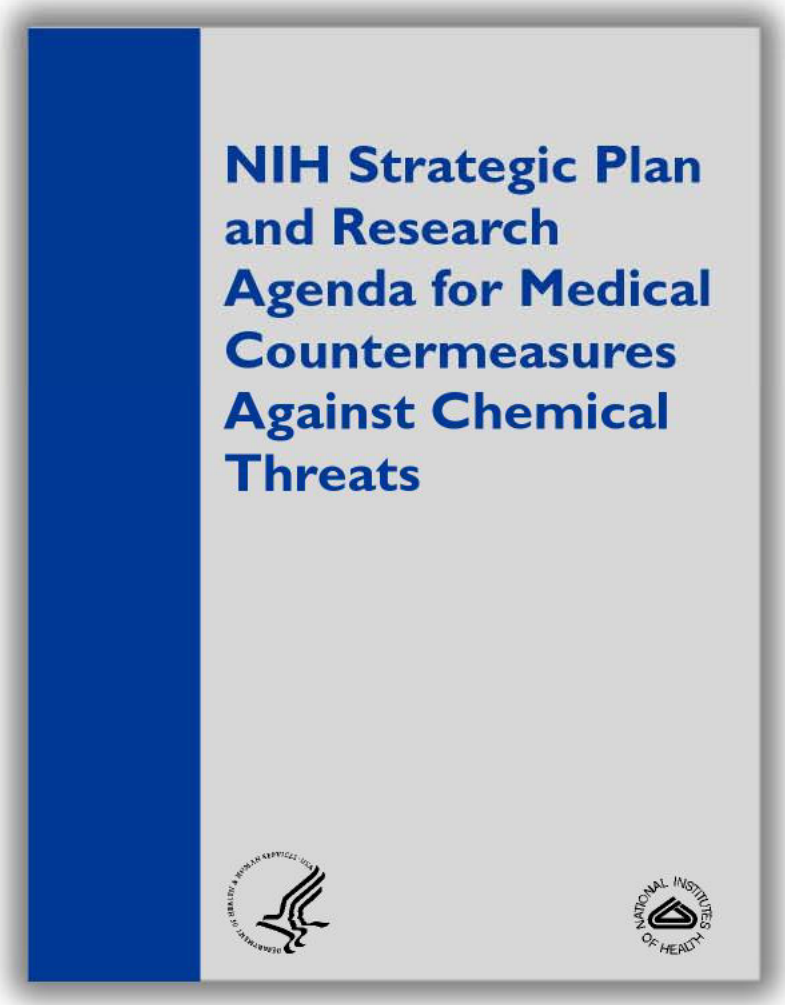
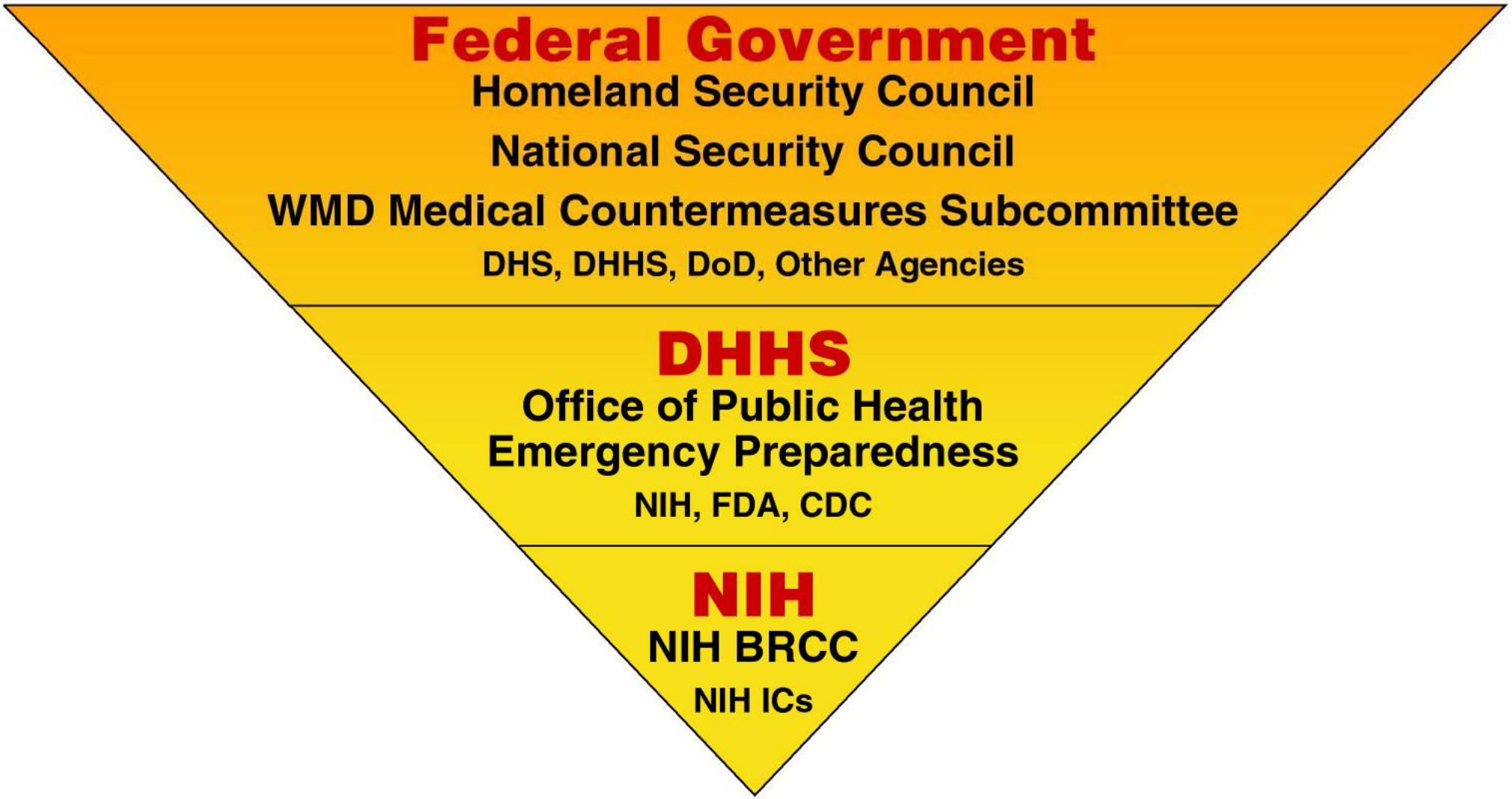
Chemical Countermeasures: Research Goals

Immediate

- Expand indications of FDA-approved drugs for use in treatment of chemical injury
- Develop Centers of Excellence in Medical Chemical Defense Research
- Partner with U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) to expand product development efforts

Intermediate/Long-Term

- Develop broadly acting interventions to prevent and treat chemical injury and to promote recovery
- Develop rapid assessment tools to determine extent of chemical injury and prognosis



Coordination of Medical Countermeasures Activities