



COMMITTEE ON PREPOSITIONED MEDICAL COUNTERMEASURES FOR THE PUBLIC

Rapid access to medical countermeasures (for example, antibiotics) is critical for preventing, mitigating, and treating illness and death caused by acts of terrorism. These threats include a large-scale biological attack with a bacterial agent like anthrax, plague, or tularemia; an attack with a nerve agent; and the detonation of an improvised nuclear device. The logistics of effectively delivering medical countermeasures during a public health emergency are tremendously challenging because of the large number of people who may be exposed and the small time window during which individuals must take countermeasures to prevent illness and death. For example, if aerosolized anthrax were released over a large densely-populated area, hundreds of thousands to millions of people would need prophylactic antibiotics within 48 hours to prevent deadly inhalational anthrax.

All levels of government—federal, state, and local—and the private sector are involved in plans to distribute and dispense countermeasures. The Strategic National Stockpile (SNS) is a national repository of medicine and medical supplies that can be rapidly deployed around the country to supplement state and local stockpiles. Once the SNS materiel arrives, state and local public health authorities assume the responsibility of distributing and dispensing the countermeasures to their population. Since 2004, the Centers for Disease Control and Prevention's Cities Readiness Initiative has helped state and metropolitan public health departments develop plans to dispense antibiotics to the entire population of the nation's largest cities and metropolitan areas within 48 hours of an attack.

State and local plans currently rely heavily on points of dispensing (PODs), which are locations where medical countermeasures are dispensed to the affected population. Because of the scope of the challenge and the resources required, most communities still lack adequate mechanisms and capacity to quickly dispense countermeasures to all exposed and potentially exposed populations. Several cities have also recently started to develop plans that use postal carriers to distribute antibiotics to residents for self-administration.

Federal, state, and local public health authorities and the private sector are considering strategies that preposition medical countermeasures closer to their intended users prior to an incident, as a supplement to established strategies. Prepositioning strategies include community-based caches, workplace caches, providing countermeasures to first responders as part of their equipment, and placing medications directly in households for use only during a public health emergency.

Prepositioning strategies are being considered because they could potentially help ensure that a larger number of people receive countermeasures within the timeframe in which the countermeasures are effective to prevent, mitigate, and treat illness and death following a terrorist act. However, many complex issues need to be more fully considered before decisions are made about widely implementing prepositioning strategies, including questions about logistics, legal issues, effectiveness, safety, equity, and cost.

Building on previous IOM reports and workshops on medical countermeasures development, distribution, and dispensing, the IOM's Board on Health Sciences Policy has been asked to undertake a consensus committee project on prepositioning medical countermeasures for the public. Federal policy makers and state and local officials could use the results of this activity to inform the development of strategies for prepositioning medical countermeasures.

Statement of Task: In response to a request from the HHS Office of the Assistant Secretary for Preparedness and Response (ASPR), the Institute of Medicine will convene an ad hoc committee of subject matter experts to inform the use of prepositioned medical countermeasures (MCM) for the public. The committee will focus on prepositioning antibiotics for protection against a terrorist attack using *Bacillus anthracis* or a similar pathogen. More specifically, the ad hoc committee will produce a report that will:

- Consider the role of prepositioned medical countermeasures for the public (e.g., prepositioning at home, local stockpiles, and workplace caches) within an overall MCM dispensing strategy that includes traditional MCM dispensing and distribution strategies such as PODs, taking into account both logistical and non-logistical factors (e.g., safety and ethics).
- Identify and describe key factors and variables that should be included in a strategy for prepositioning MCM for the public (e.g., population demographics, threat status, proximity to high-value targets, proximity to healthcare facilities).
- Discuss preliminary considerations for the development of an incremental and phased MCM prepositioning strategy.
- Based on available evidence, describe economic advantages and disadvantages of various MCM prepositioning strategies for the public.

The committee will develop scenarios, as needed, to illustrate the interaction of the strategic considerations, key factors, and variables in different situations and environments. The committee will base its recommendations on currently available published literature and other available guidance documents and evidence, expert testimony, as well as its expert judgment.

INSTITUTE OF MEDICINE

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PREPOSITIONED MEDICAL COUNTERMEASURES FOR THE PUBLIC**

ROBERT R. BASS (Chair)

Maryland Institute for Emergency Medical Services Systems

TIA POWELL (Vice-Chair)

Montefiore-Einstein Center for Bioethics

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Stanford University Department of Management
Science and Engineering

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Target Corporation

ROBERT L. BURHANS

New York State Department of Health (Retired)

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Cox Associates

ROBERT S. HOFFMAN

New York City Poison Control Center

DANIEL LUCEY

Georgetown University Medical Center

KEVIN MASSEY

Evangelical Lutheran Church in America

ERIN MULLEN

Pharmaceutical Research and Manufacturers of
America

JOANNE NIGG

University of Delaware Department of Sociology

HERMINIA PALACIO

Harris County Public Health and Environmental
Services, Texas

ANDREW T. PAVIA

The University of Utah Health Sciences Center
and Primary Children's Hospital

STEPHEN M. POLLOCK

University of Michigan Department of Industrial
and Operations Engineering

REED V. TUCKSON

UnitedHealth Group

JEFFREY S. UPPERMAN

Children's Hospital Los Angeles

PROJECT STAFF

Clare Stroud, Ph.D., *Study Director*

Bruce Altevogt, Ph.D., *Senior Program Officer*

Andrew Pope, Ph.D., *Director, Board on Health
Sciences Policy*

Neal Glassman, Ph.D., *Senior Program Officer,
Division on Engineering and Physical Sciences*

Kristin Viswanathan, M.P.H., *Research Associate*

Tonia Dickerson, *Senior Program Assistant*

The IOM was chartered in 1970 as a component of the National Academy of Sciences to enlist distinguished members of the appropriate professions in the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 congressional charter responsibility to be an adviser to the federal government and its own initiative in identifying issues of medical care, research, and education. For additional information on the Committee on Prepositioned Medical Countermeasures for the Public visit the project's homepage at www.iom.edu/prepositionedMCM, or contact Clare Stroud at (202) 334-1847 or cstroud@nas.edu.