

MASS PROPHYLAXIS

Capability Definition

Mass Prophylaxis is the capability to protect the health of the population through the administration of critical interventions in response to a public health emergency in order to prevent the development of disease among those who are exposed or are potentially exposed to public health threats. This capability includes the provision of appropriate follow-up and monitoring of adverse events, as well as risk communication messages to address the concerns of the public.

Outcome

Appropriate drug prophylaxis and vaccination strategies are implemented in a timely manner upon the onset of an event to prevent the development of disease in exposed individuals. Public information strategies include recommendations on specific actions individuals can take to protect their family, friends, and themselves.

Relationship to National Response Plan Emergency Support Function (ESF)/Annex

This capability supports the Emergency Support Function:

(ESF) #8: Public Health and Medical Services

Preparedness Tasks and Measures/Metrics

Activity: <i>Develop and Maintain Plans, Procedures, Programs, and Systems</i>	
Critical Tasks	
Res.C2a 1.1	Create plans and systems for mass prophylaxis patient movement and tracking
Res.C1c 1.1	Create plans and systems for the transport and tracking of medical supplies and equipment
Res.C2a 1.2	Develop procedures for obtaining mass prophylaxis supplies from the receipt, staging, and storage (RSS) sites in coordination with the Medical Supplies and Distribution Capability
Res.C2a 1.3	Develop plans, procedures, and protocols for mass prophylaxis dispensing operations
Res.C2a 1.3.3	Develop the tactical communications portion of the mass prophylaxis dispensing plan
Res.C2a 1.3.2	Develop a mass prophylaxis inventory management system
Res.C2a 1.3.1	Develop procedures for the distribution and dispensing of mass prophylaxis
Res.C2a 1.4	Develop processes to ensure that first responders, public health responses, critical infrastructure personnel, and their families receive prophylaxis prior to POD opening
Res.C2a 1.4.1	Develop processes for coordinating with treatment centers
Res.C2a 1.4.2	Establish protocols for individuals receiving medications (e.g., number of doses, identification requirements, etc.)
Res.C2a 1.4.3	Establish processes for obtaining and distributing investigation new drug (IND) consent forms at POD sites

Res.C2a 1.5	Develop credentialing mechanisms for volunteers and staff at mass prophylaxis dispensing sites
Res.C2a 1.5.1	Develop programs to ensure security of mass prophylaxis during dispensing operations
Res.C2a 1.6	Identify and address legal issues regarding authorizations for mass prophylaxis practitioners
Res.C2a 1.3.3.1	Establish processes for communicating with the public regarding nature of event and mass prophylaxis operations in coordination with Emergency Public Information and Warning Capability,
Preparedness Measures	
	Metric
Percent of state/local plans that contain elements included in the State/Local SNS Assessment Tool	100 %
Mass prophylaxis plan is incorporated into overall emergency response plan	Yes/No
Plan addresses requesting and receiving Mass Prophylaxis from the State and/or CDC.	Yes/No
Plan addresses the distribution of mass therapeutics (e.g. Points of Dispensing, medical supplies, staffing, security).	Yes/No
Plan addresses cultural characteristics of populations to be treated (e.g. religious needs, language barriers).	Yes/No
Plan addresses the provision of prophylaxis to special needs populations (e.g. disabled people, quarantined individuals, people requiring ongoing medical support).	Yes/No
Plan addresses infection control measures to protect staff and patients (e.g. medical screening is performed in separate area away from mass prophylaxis site).	Yes/No
Frequency with which mass prophylaxis plan is reviewed and updated	Every 12 months
Mass prophylaxis plan incorporates input from all relevant stakeholders, including health department, emergency management agency, public works, department of transportation, law enforcement, EMS, fire, hospitals, military installations, department of finance)	Yes/No
Treatment center point of contact is identified and documented in mass prophylaxis plan	Yes/No
Mass prophylaxis plan provides authorization for practitioners to issue standing orders and protocols for dispensing sites	Yes/No
Mass prophylaxis plan provides authorization for practitioners to dispense medications	Yes/No

Activity: *Develop and Maintain Training and Exercise Programs*

Critical Tasks	
Res.C2a 2.1	Develop and implement training for mass prophylaxis operations
Res.C2a 2.1.1	Conduct training of all key personnel on fundamentals of NRP, ICS and NIMS
Res.C2a 2.1.2	Develop and implement training for key personnel on tactical communications during mass prophylaxis operations
Res.C2a 2.1.3	Develop and implement training on public information and communication for mass prophylaxis operations
Res.C2a 2.1.4	Develop and implement training on security of mass prophylaxis
Res.C2a 2.1.5	Develop and implement training for mass prophylaxis inventory management

Res.C2a 2.1.6	Develop and implement training for mass prophylaxis repacking, distribution, and dispensing	
Res.C2a 2.2	Create and implement plans and drills for mass prophylaxis	
Preparedness Measures		Metric
Exercises evaluate the tactical communications portion of the mass prophylaxis plan		Yes/No
Exercises evaluate the public information and communication portion of the mass prophylaxis plan		Yes/No
Exercises evaluate the mass prophylaxis plan procedures to maintain security		Yes/No
Exercises evaluate the mass prophylaxis inventory management system plan		Yes/No
Exercises evaluate the mass prophylaxis plan procedures to distribute prophylaxis		Yes/No
Exercises evaluate the mass prophylaxis dispensing procedures		Yes/No
Exercises evaluate the treatment center coordination plan		Yes/No
Frequency with which all key emergency and public health personnel to include Leaders and POD Managers are trained in accordance with identified training plans		Every 12 months
Frequency with which at least one full scale POD exercise to test Mass Prophylaxis capability is conducted		Every 12 months

Performance Tasks and Measures/Metrics

Activity: Direct Mass Prophylaxis Tactical Operations		
Definition: In response to notification of a mass prophylaxis incident, provide overall management and coordination of mass prophylaxis operations		
Critical Tasks		
Res.C2a 3.2	Coordinate dispensing/administration of mass prophylaxis	
Res.C2a 3.4	Coordinate public information releases regarding location of PODs	
Res.C2a 3.3.1	Coordinate with the Medical Supply and Distribution Capability to ensure that medical stockpile warehouses can re-supply Points of Dispensing (PODs) as needed	
Res.B3b 3.2.2	Coordinate with public information agencies to disseminate health and safety information to the public	
Res.B3b 3.3.2	Coordinate mass prophylaxis to functional and medical support sheltering locations for special needs populations	
Res.C2a 3.3.4	Coordinate with law enforcement to provide security to protect medicines, supplies, and public health personnel	
Res.C2a 3.5	Establish and maintain tactical equipment and communication networks including establishing redundant systems	
Res.C2a 3.2.4	Coordinate Point of Dispensing (POD) locations and hours of operations	
Res.C2a 3.2.5	Establish shift change procedures to ensure continuity of operations	
Performance Measures		Metric
Percent of public health personnel who arrive safely within target timeframe to perform capability		100%

Percent of PODs that completely deplete all medical resources prior to re-supply	0%
Time in which public is provided with accurate and consistent information messages regarding POD locations	Within 4 hours from POD opening
Testing and functionality of tactical equipment and communication networks is demonstrated and documented	Yes/No
The availability of the intervention is not affected by supply chain or other logistical problems	Yes/No
Percent of population covered by PODs that are secured, open, and prepared to serve	100%

Activity: Activate Mass Prophylaxis Dispensing Operations

Definition: Upon notification, activate points of dispensing for mass prophylaxis operation

Critical Tasks

Res.C2a 4.4	Implement local, regional, and State plans for distributing and dispensing prophylaxis. This should include procedures for requesting federal SNS assets when state and local caches and other available resources have been depleted
Res.C2a 4.2.1	Initiate staff call down lists for POD operations
Res.C2a 4.3.1	Ensure POD site operations are established in accordance with POD specific plans and protocols
Res.C2a 4.3.2	Provide internal and external security for POD sites
Res.C2a 4.4.1	Have or have access to information systems that support tracking mass prophylaxis allocation that comply with the Public Health Information Network (PHIN) functional requirements for Countermeasure and Response Administration
Res.C2a 4.2.3	Assemble needed supplies and equipment for POD operations including materials to prepare oral suspension
Res.C2a 4.5	Create and assemble signage for POD
Res.C2a 4.6	Implement the plan to provide mass prophylaxis to functional and medical support sheltering locations for populations with disabilities, etc.

Performance Measures

Metric

Percent of sufficient, competent personnel available to staff dispensing centers or vaccination clinics, as set forth in SNS plans and State/local plans	100%
Time for all first shift staff to be at the POD Site and ready	3 hours from notification
Time for all equipment and operational supplies to be in place	4 hours from notification
Percent of security forces designated in the POD specific plan who report for duty	100%

Activity: Establish Points Of Dispensing**Definition: Set up POD to receive members of the general public, according to POD plan****Critical Tasks**

Res.C2a 5.2	Implement processes for providing prophylaxis for public health responders and their families prior opening POD to general population
Res.C2a 5.3	Implement processes for providing prophylaxis for first responders and critical infrastructure personnel and their families prior to opening POD to general population
Res.C2a 5.1.4	Ensure adequate staffing levels for anticipated mass prophylaxis throughput
Res.C2a 5.6	Implement processes for obtaining and distributing mass copies of IND protocol consent forms at POD sites
Res.C2a 5.5	Post signage to inform and direct the public
Res.C2a 5.1.3.1	Implement processes to ensure the mobility impaired populations have access to PODs

Performance Measures**Metric**

Percent of POD staff, first responders, and critical infrastructure personnel and their families given prophylaxis prior to POD opening to general public	100%
Percent of PODs that are easily accessible and fully functional	100%
Percent of IND drugs dispensed that have corresponding consent forms	100 %
Percent of population directed to appropriate stations	100 %

Activity: Conduct Triage for Symptoms**Definition: Conduct initial screening of individuals prior to their entering the POD****Critical Tasks**

Res.C2a 6.1.2	Establish number of triage stations to commensurate with the anticipated size of the throughput
Res.C2a 6.1.3	Ensure symptomatic individuals are directed to appropriate treatment facility
Res.C2a 6.2.1	Transport or direct symptomatic individuals to appropriate health facility prior to their entering POD sites
Res.C2a 6.2.2	Ensure that personnel conducting triage and other persons in the area are not exposed to disease

Performance Measures**Metric**

Time in which clinical staff and volunteers become available at triage station	Within 4 hours from decision to activate site
Transportation assets are available to bring symptomatic individuals to appropriate treatment facility	Yes/No

Activity: Conduct Medical Screening**Definition: Review patient screening documentation and available medical history to determine proper course of treatment****Critical Tasks**

Res.C2a 7.1	Ensure proper documentation is created for each individual receiving prophylaxis	
Res.C2a 7.2	Identify appropriate prophylaxis based on medical history and exposure	
Res.C2a 7.3	Ensure sufficient staffing at the POD site screening station to prevent initial bottlenecks	
Res.C2a 7.4	Take appropriate actions for individuals for whom prophylaxis is determined to be inappropriate	
Performance Measures		Metric
Time in which clinical staff and volunteers become available at medical screening station		Within 4 hours from decision to activate site
Proper documentation secured		Yes/No
Percent of people dispensed the appropriate drug		100 %

Activity: Conduct Mass Dispensing**Definition: Dispense oral medication/administer vaccination according to standing medical orders****Critical Tasks**

Res.C2a 8.2.6	Dispense the appropriate medication and dosage to the population, including children, infants and special needs populations	
Res.C2a 8.3	Maintain a system for inventory management to ensure availability of critical prophylaxis medicines and medical supplies	
Res.C2a 8.3.1	Ensure adequate supply of pharmaceuticals, ancillary medical supplies and drug information sheets	
Res.C2a 8.3.3	Ensure availability of and distribute pre-printed drug information sheets	
Res.C2a 8.3.4	Distribute IND consent forms as needed for mass prophylaxis/vaccine administration	
Res.C2a 8.1.1	Monitor patient throughput per hour	
Performance Measures		Metric
Percent of dispensing centers or vaccination clinics that are able to process patients at the rate (persons per hour) specified in SNS Plans and State/Local Plans		100%
Percent of at-risk population that was successfully provided initial prophylaxis within 48 hours of State/local decision to provide prophylaxis		100%
Dispensing is not interrupted due to lack of preparation, availability of forms and materials and equipment		Yes/No
Percent of patients who are transported from station to station within times specified in SNS Plans and State/local plans		100%
Percent of parents receiving appropriate dosage and/or instructions to prepare oral suspensions for their children according to FDA Guidelines		100%

Percent of individuals receiving appropriate medication	100%
---	------

Activity: Monitor Adverse Events

Definition: Through monitoring, identify individuals who have an adverse reaction to prescribed medication and initiate appropriate medical care

Critical Tasks

Res.C2a 9.1	Continue to track outcomes and adverse events following mass distribution of prophylaxis
Res.C2a 9.3	Provide alternate medication as ordered by clinician
Res.C2a 9.1.1	Access information systems that support monitoring of adverse reactions that comply with the PHIN functional requirements for Countermeasure and Response Administration
Res.C2a 9.1.2	Establish a call center to triage individuals to receive appropriate medical care in case of an adverse effect

Performance Measures

Metric

Percent of patients who receive instructions for adverse event reaction	100%
Adverse event monitoring system is in place	Yes/No
Number of staff or mechanisms to monitor individuals is adequate based on number of individuals receiving prophylaxis	Yes/No

Activity: Demobilize Mass Prophylaxis Operations

Definition: Upon completion, stand down POD operations, return site to normal operations, and release or redeploy staff

Critical Tasks

Res.C2a 10.1	Debrief POD personnel
Res.C2a 10.2	Reconstitute POD personnel and supplies

Performance Measures

Metric

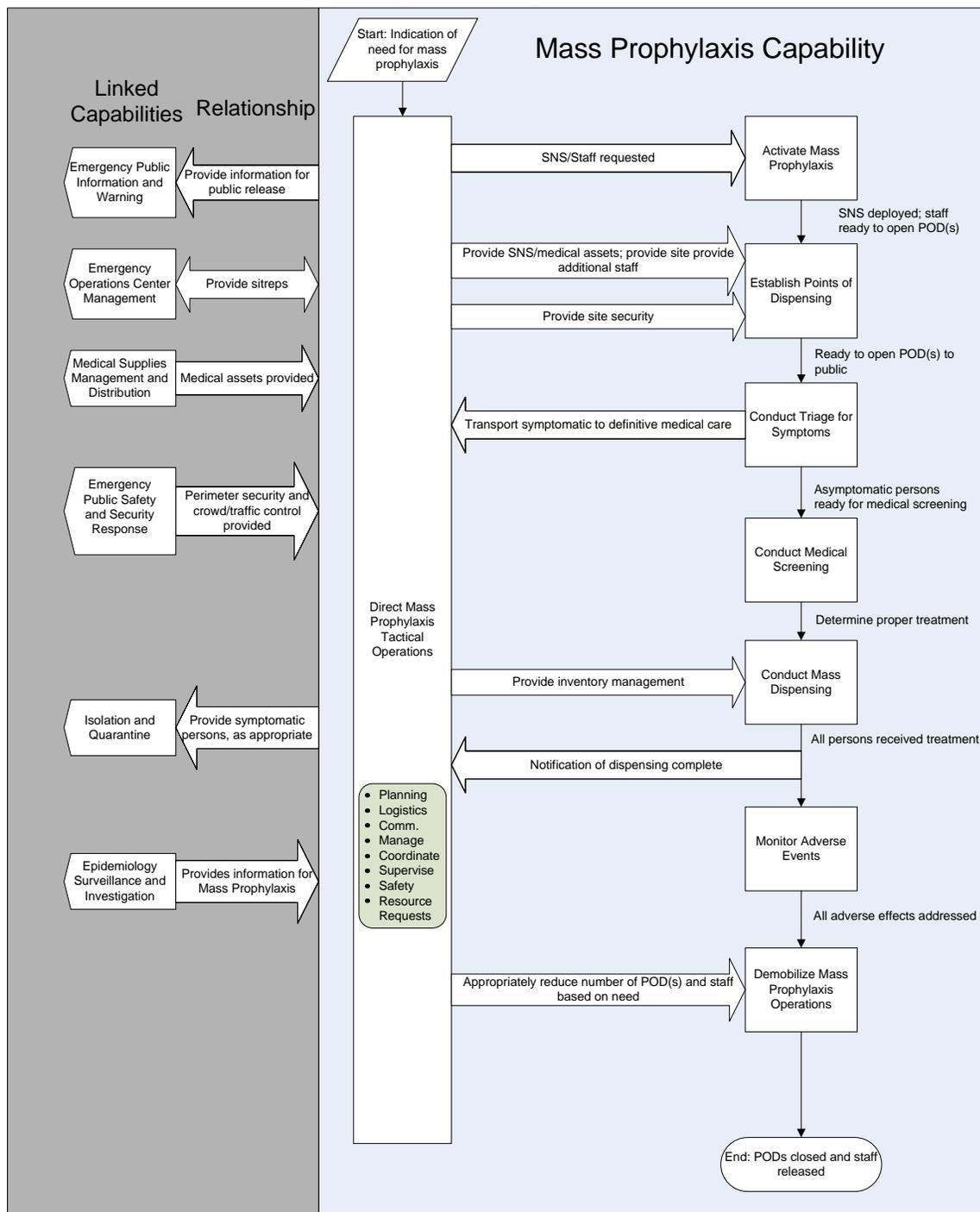
Percent of staff debriefed after mass prophylaxis distribution	100%
--	------

Linked Capabilities

Linked Capability	Relationship
Emergency Public Information and Warning	Mass Prophylaxis provides releasable public information of POD sites and other relevant information to Emergency Public Information and Warning for public notification.

Linked Capability	Relationship
Emergency Operations Center Management	Emergency Operations Center Management provides situation reports to Mass Prophylaxis, which provides situation reports in return.
Medical Supplies Management and Distribution	Medical Supplies Management and Distribution provides medical assets to Mass Prophylaxis, including the request for SNS and the receipt, staging, and storage of mass prophylaxis
Emergency Public Safety and Security Response	Emergency Public Safety and Security Response provides perimeter security and crowd/traffic control for Mass Prophylaxis.
Epidemiology Surveillance and Investigation	Epidemiology Surveillance and Investigation provides information for Mass Prophylaxis.

Capability Activity Process Flow



Resource Element Description

Resource Elements	Components and Description
Multiagency Coordination Systems (MACS)	Command and control center based on incident command system (ICS) functions (planning, logistics, operations, finance/administration and information)
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	Locations where prophylaxis will be provided. Includes all equipment and trained and available fulltime staff and volunteers to include: clinicians/public health professions; ancillary support personnel, traffic control personnel, security personnel, inventory assistants, and staff for storing, receiving and distributing federal medical supplies and equipment to fully staff 24 hour operations at each POD
Prophylaxis supplies and materials	Pharmaceuticals, medical supplies and materials, available from local, state and federal stockpiles. This may include follow-on managed inventory (MI) supplies
Receiving, Staging, and Storage (RSS)	
Technical Advisory Response Unit (TARU) Teams	
Adverse event monitoring system	Triage call center system and personnel equipped to address affected populations who have had an adverse reaction. Vaccines and drugs used under the IND protocol require monitoring and reporting of such adverse events. Monitoring and reporting the adverse effects of IND vaccines and drugs are the joint responsibility of designated State adverse event coordinators and the CDC through established mechanisms
Countermeasure Response and Administration system	

Planning Assumptions

- Assume population potentially exposed and requiring prophylaxis is 2 million in one Metropolitan Statistical Area (MSA). Additional geographic locations would require resource considerations according to population estimates in affected areas.
- Additional illnesses will occur prior to mass prophylaxis campaign. Many people are likely to present who fear they might have been exposed multiple unexplained physical symptoms (MUPS). Due to time elapsed prior to plan execution and non-informed public. Studies show that between 4 and 50 times as many people seek medical care after an event for MUPS than for diagnosable symptoms treatable by medical providers.
- State/local medicines and medical supplies are insufficient for mass prophylaxis.
- Federal medical assets are requested and received at each location within 12 hours from the Federal decision to deploy assets.
- Adequate prophylaxis is readily available from the Strategic National Stockpile; initial 10-day regimen with ciprofloxacin (Cipro) or doxycycline (Doxy). Amoxicillin (10-day regimen) is also available based on antimicrobial sensitivity results. Goal is to protect exposed or potentially exposed population as quickly as possible based on current Centers for Disease Control (CDC) recommendations for anthrax prophylaxis.

- Follow-on prophylaxis with vaccine and antibiotics (50-day supply) for persons at highest risk of exposure based on epidemiological data and current CDC recommendations for anthrax prophylaxis.
- State/locals have sufficient personnel to fully command or staff a mass prophylaxis dispensing operation. This may include assistance from Federal response teams, if requested.
- State/locals have developed and exercised both an emergency response plan and a Mass Prophylaxis response plan.
- Guidelines for post exposure prophylaxis populations will be developed by public health officials and subject matter experts depending on epidemiological circumstances. Decision will be based on estimates of timing, location and conditions of exposure.
- Point of Distribution (POD) Staffing: Number of PODs determined assumes 24 hour operation, population equally distributed among PODs, performance at 100% capacity at all times, constant flow of people, staffing is constant and adequate. PODs should be located where easily accessible to the public i.e., publicly owned buildings.
- Medical Assets/Supplies – Adequate prophylaxis and medical supplies are readily available in the SNS.
- Due to limited pediatric suspension, states have established MOAs with local compounding pharmacies and are prepared to use the FDA’s crushing guidelines to enhance pediatric prophylaxis capability.
- The regulatory mechanism for providing investigational product(s) for Mass Prophylaxis may be under an IND or an Emergency Use Authorization.
- States will be prepared for both IND and EUA regulatory channels.
- Population Centers – resources readily available for largest urban areas for duration of prophylaxis period.
- Receiving, Staging, and Storing (RSS) – State/local jurisdictions with mass prophylaxis plans have identified a site for receiving, staging, and storing Federal assets. In some worse case scenarios, more than one site may need to be identified.
- Risk Factors:
 - The occurrence of multiple events could deplete the availability of Federal stockpiled medical assets and Federal resources i.e., staff, supplies, etc.
 - The unavailability of staff and volunteers to operate the POD system.
 - Fear and mass panic could escalate.
 - Inadequate planning for mass prophylaxis would result in delays in response and ultimately risk of loss of life.

Planning Factors from an In-Depth Analysis of a Scenario with Significant Demand for the Capability

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Multiagency Coordination Systems (MACS)	24 hours/7 days	Number/shift	Number/2–3 shifts
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	47,667 patients per hour (PPH)	Prophylaxis for 2 million	47 DVCs (PODs)
Receiving, Staging, and	Single warehouse,	Prophylaxis medicines	Federal assets from SNS

Resource Organization	Estimated Capacity	Scenario Requirement Values	Quantity of Resources Needed
Storage (RSS)	minimum 12,000 square feet	for 2 million	based on estimated number of exposed persons
Technical Advisory Response Unit (TARU) Teams	12-hour response.	1 7-9 member team for logistics, operations, and communications	1 team per single geographic incident
Adverse event monitoring system	24 hours	Triage call center(s) and personnel to support affected population	Estimates will vary depending on population receiving prophylaxis and who have an adverse reaction

Approaches For Large-Scale Events

The information and analysis included in this capability reflects only one of the 15 scenarios - aerosolized anthrax.

Target Capability Preparedness Level

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Multiagency Coordination Systems (MACS)		1		Federal/State/Local	Command and Control (Mass Prophylaxis Tactical)
Dispensing/Vaccination Centers (DVC) Points of Distribution (PODs)	Resource Organization	1	Per population of 42,554 (47 DVC/PODs per 2 million people)	State/Local	Establish POD Conduct Triage for Symptoms Conduct Medical Screening Conduct Mass Dispensing Conduct Adverse Events Monitoring
Prophylaxis supplies and materials	Equipment			Federal/State/Local/Private Sector	Conduct Mass Dispensing
Adverse event monitoring system	Non-NIMS Resource Organization	1+	National	Federal/State/Local	Conduct Adverse Events Monitoring

Resource Element Unit	Type of Element	Number of Units	Unit Measure (number per x)	Lead	Capability Activity supported by Element
Countermeasure Response and Administration system	Non-NIMS Resource Organization	1	Nationally	Federal (HHS/CDC)	Conduct Adverse Event Monitoring

References

1. Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003. <http://www.whitehouse.gov/news/releases/2003/12/20031217-6.html>.
2. National Response Plan. U.S. Department of Homeland Security. December 2004.
3. National Incident Management System. U.S. Department of Homeland Security. March 2004. <http://www.dhs.gov/interweb/assetlibrary/NIMS-90-web.pdf>.
4. Modular Emergency Medical System: Concept of Operations for the Acute Care Center. U.S. Army Soldier and Biological Chemical Command, Biological Weapons Improved Response Program. Maryland. May 2003.
5. Resource Typing Definitions-I: First 60 Resources. National Mutual Aid and Resource Management Initiative. U.S. Department of Homeland Security, Federal Emergency Management Agency. January 2004. http://www.fema.gov/pdf/preparedness/initial_60_rtd.pdf.
6. Emergency Response Training Necessary for Hospital Physicians/Nurses That May Treat Contaminated Patients. Standard interpretation. Occupational Safety and Health Administration. March 1999. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22710.
7. Emergency Response Training Requirements for Hospital Staff. Standard interpretation. Occupational Safety and Health Administration. April 1997. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22393.
8. Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120. Occupational Safety and Health Administration. November 2002. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9765.
9. Medical Personnel Exposed to Patients Contaminated with Hazardous Waste. Standard interpretation. Occupational Safety and Health Administration. March 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20609.
10. Training Requirements for Hospital Personnel Involved in an Emergency Response of a Hazardous Substance. Standard interpretation. Occupational Safety and Health Administration. October 1992. http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20911.
11. Mass Antibiotic Dispensing-Managing Volunteer Staffing. Centers for Disease Control and Prevention. December 2004. <http://www.phppo.cdc.gov/PHTN/webcast/antibiotic2/default.asp>.
12. Mass Antibiotic Dispensing: A Satellite Web Cast Primer. Centers for Disease Control and Prevention. June 2004. <http://www.phppo.cdc.gov/phtn/antibiotic/default.asp>.
13. U.S. Postal Service May Deliver Medicine in the Event of a Catastrophic Incident. Memorandum of understanding between the U.S. Departments of Homeland Security and Health and Human Services and the U.S. Postal Service. February 2004. http://www.usps.com/communications/news/press/2004/pr04_015.pdf#search='U.S.%20POSTAL%20SERVIC%20MAY%20DELIVER%20MEDICINE.
14. DHS, Office for Domestic Preparedness, Metropolitan Medical Response System (MMRS) program, <http://mmrs.fema.gov>.
15. Receiving, Distributing, and Dispensing Strategic National Stockpile (SNS) Assets: A Guide for Preparedness, Version 10 – Draft, June 2005.

16. "Community-Based Prophylaxis. A Planning Guide for Public Health Preparedness." Weill Medical College of Cornell University, Department of Public Health, August 2004.
17. Hupert, Nathaniel. Modeling the Public Health Response to Bioterrorism: Using Discrete Event Simulation to Design Antibiotic Distribution Centers, in a September-October 2002 supplement to Medical Decision Making (*Med Decis Making 2002;22(Suppl): S17-S25*).
18. "PHIN Preparedness - Countermeasure/Response Administration Functional Requirements", Version 1.0, Centers for Disease Control and Prevention, April 2005.
19. "State and Local Technical Assistance Review Tools, Centers for Disease Control and Prevention, September 11, 2006.