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INDEPENDENT STATE AUDITOR'S REPORT ON CERTAIN ACTIVITIES OF THE DEPARTMENT OF PUBLIC HEALTH BIOTERRORISM GRANTS JULY 1, 2004 TO DECEMBER 31, 2005

OFFICIAL AUDIT REPORT

MARCH 24, 2008

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The *Homeland Security Act of 2002* was enacted by Congress for the purpose of coordinating a national effort to prevent and respond to terrorism in the United States. As part of that effort, and to achieve that objective, Congress allocated hundreds of millions of dollars in bioterrorism grants for distribution to state and local public safety agencies nationwide to enhance national security by improving preparedness for potential bioterrorism attacks. The funds awarded to the U.S. Department of Health and Human Services (HHS) were intended to strengthen its capacity to respond to terrorism and other public health emergencies, through the distribution of funds to the Centers for Disease Control (CDC) and the Health Resources and Services Administration (HRSA). CDC funding was intended to strengthen public health preparedness to address bioterrorism and outbreaks of infectious diseases by upgrading infectious disease surveillance and investigation, and expanding public health laboratory and communications capacities; while HRSA funding was intended to develop and implement a coordinated regional system to enhance the ability to respond to a mass casualty event by partnering hospitals and other health care providers with emergency medical response systems.

Beginning in fiscal year 2002, HHS began awarding funds to the Massachusetts Department of Public Health (DPH), for the purpose of bioterrorism preparedness, via the CDC and HRSA grant programs. During fiscal year 2005, HHS awarded the DPH approximately $28.1 million. The CDC funding focuses on the critical tasks necessary for the public health community to prepare for and respond to a terrorist event or other public health emergencies. HRSA funding is intended to assist hospitals in identifying and responding to any potential terrorism attack or infectious disease outbreak. Our overall objective was to examine DPH's management and accountability of bioterrorism funds, and to determine whether a monitoring system is in place to adequately ensure that grant funds are being expended in compliance with grant requirements. The scope of the audit focused on activities and requirements detailed in the cooperative agreements with CDC and HRSA, which fall within the U.S. Department of Health and Human Services.

In accordance with Chapter 11, Section 12, of the General Laws, the Office of the State Auditor (OSA) conducted an audit of DPH's use of Homeland Security Bioterrorism Grants for the period July 1, 2004 through December 31, 2005. Our audit was conducted in accordance with applicable generally accepted government auditing standards for performance audits. The purpose of our review was to examine DPH's management of and accountability for bioterrorism funds and to determine whether a monitoring system is in place to adequately ensure that grant funds are expended in compliance with grant requirements.

DPH entered into a Memorandum of Agreement (MOA) with contractors for the purpose of developing a mutual aid plan for upgrading and deploying Emergency Medical Services (EMS) units in response to a mass casualty incident (MCI) due to terrorism and infectious disease outbreak. Our review found that the MOA was not followed in its entirety. Specifically, all municipalities within the region had not been notified of trailer availability, location, and purpose; a biannual fiscal report on the expenditures of funds had not been provided; trailer storage locations were not as stated in the signed MOA; periodic drills and/or exercises that involve the use of the MCI trailer and equipment had not taken place; periodic maintenance of the MCI trailers and equipment did not take place to ensure that the trailers were in a constant state of readiness; reporting obligations regarding all trailer activities (e.g., deployment, maintenance checks) had not been met; change of Hosting Location procedures had not been followed; and a Standard Operating Procedure had not been developed.

In its response to the report, DPH stated that corrective measures have been implemented. Specifically, regions have established websites or other broadly effective communication methodologies resulting in broad awareness of the availability, location, and purpose of MCI trailers; regions have filed fiscal reports with DPH; each EMS Region has engaged at least one trailer in either a drill or exercise; a DPH full-time employee (FTE) has been assigned responsibility for dealing with the EMS Councils to monitor and ensure all tenets of the MOA are achieved; and Standard Operating Procedures including activation, dispatch and communication have been developed and documented in writing and implemented by all EMS councils.

DPH was awarded funds by the U.S. Centers for Disease Control and Prevention (CDC) for the purpose of upgrading state and local public health jurisdictions' preparedness for and response to bioterrorism, outbreaks of infectious disease, and other public health threats and emergencies. The cooperative agreement for CDC funding calls for a coordination of activities at both the state and local levels for the proposed use of these funds. To carry out this objective, DPH developed regional coalitions to facilitate planning and the sharing of resources, and awarded grants to them to support each local public health authority in its emergency preparedness and response needs. Each regional health coalition designated a host agency that acts as the fiscal and administrative agent by providing coordination of support, disbursement of funds, maintenance of documentation, and preparation of reports as specified by DPH.

In order to determine whether fiscal objectives had been met as outlined in the cooperative agreement, we reviewed the fiscal report of one selected coalition submitted to DPH at the end of fiscal year 2004 and tested transactions used in compiling the report. Our review disclosed that DPH was not aware that two communities within the

coalition had not accepted or expended the $2,000 computer allocation that was a condition of a separate grant, that there were unexpended grant funds on hand at the end of fiscal year 2004 that were not included in any carry-over request of funding into the next fiscal year, and that two different fiscal procedures were used by the coalition in fiscal years 2004 and 2005 in an effort to determine the most efficient way to account for the use of the funds.

Because DPH had not established a fiscal protocol for use by regional health coalitions, we found that each coalition had established its own procedures for spending and distributing funds, using both the advance method and the reimbursement method. We found that when local spending took place outside of the host agency, it was difficult for the coalition to effectively monitor and control it; that reporting of activity by the local boards needed to take place more regularly, not just at year-end; and that there was no inventory control system in place to list fixed-asset purchases and maintain control by the host agency over the equipment purchased with bioterrorism funds.

In its response to the audit report, DPH indicated it concurred with our findings and recommendations. Furthermore, DPH stated that the Center for Emergency Preparedness was reorganized and that the newly formed Emergency Preparedness Bureau was established to fully integrate the programmatic and fiscal management of and accountability for bioterrorism funds. DPH indicated it has already taken steps to address the concerns raised in our audit, including developing and disseminating standard fiscal guidelines for Host Agencies and instituting regular communication between DPH fiscal staff and Host Agency representatives to provide more timely oversight of fiscal matters. DPH further stated that the Emergency Preparedness Bureau will review and expand these guidelines as necessary to ensure appropriate oversight, and will work with Host Agencies and regional coalitions to implement a standard inventory control system to be required of all recipients of funding.

INTRODUCTION

Background

On January 23, 2002, following international and domestic terrorist events in the fall of 2001, the *Homeland Security Act of 2002* was enacted by Congress for the purpose of coordinating a national effort to prevent and respond to terrorism in the United States. The federal government allocated hundreds of millions of dollars in bioterrorism grants for distribution to state and local public safety agencies nationwide to enhance national security by improving preparedness for potential bioterrorism attacks.

As part of that effort, and to achieve this objective, Congress authorized funding to support activities related to countering potential biological threats to civilian populations under the *Department of Defense and Emergency Supplemental Appropriations for Recovery From and Response to Terrorist Attacks on the United States Act, 2002, (Public Law 107-117).* The funds awarded to the U.S. Department of Health and Human Services (HHS) were intended to strengthen its capacity to respond to terrorism and other public health emergencies. Under Title I of the *Public Health Threats and Emergencies Act*, and later under the *Public Health Security and Bioterrorism Preparedness and Response Act of 2002(Public Law 107-188)*, HHS was authorized to distribute the funds through the Centers for Disease Control (CDC) and the Health Resources and Services Administration (HRSA). Funding through CDC was intended to strengthen public health preparedness to address bioterrorism and outbreaks of infectious diseases by upgrading infectious disease surveillance and investigation, and expanding public health laboratory and communications capacities, while HRSA funding was intended to develop and implement a coordinated regional system to enhance the ability to respond to a mass casualty event by partnering hospitals and other health care providers with emergency medical response systems. Both programs enhance emergency preparedness and response efforts at the state and local level.

Beginning in fiscal year 2002, HHS began awarding funds to the Massachusetts Department of Public Health (DPH) for the purpose of bioterrorism preparedness, via the CDC and HRSA grant programs, according to the provisions set forth in the respective cooperative agreements.

DPH has received the following federal grant awards since that time:

Fiscal Year	CDC	HRSA	Total
2002	$19,143,801	$2,709,678	$21,853,479
2003	$17,972,524	$10,686,180	$28,658,704
2004	$17,640,158	$10,886,180	$28,526,338
2005	$17,872,452	$10,256,868	$28,129,320

Both grants required DPH to meet specific objectives defined by the federal grantors and to define and propose activities and strategies to improve its preparedness levels and capacity for response. CDC funding focuses on the critical tasks necessary for the public health community to prepare for and respond to a terrorist event or other public health emergencies, emphasizing integrated response systems. HRSA funding is intended to assist hospitals in identifying and responding to any potential terrorist attack or infectious disease outbreak by creating regional hospital plans; developing surge capacity;[1] and improving connectivity between hospitals and city, local, and state health departments to enhance disease reporting.

Health Resources and Services Administration (HRSA)

In June 2002, Congress authorized a continuing response to bioterrorism and other public health emergencies to follow up on the fiscal year 2002 emergency bioterrorism legislation through the Public Health and Social Services Emergency Fund. The *Public Health Security and Bioterrorism Preparedness and Response Act of 2002* (Public Law 107-188) enacts Section 310C-1 of the *Public Health Services Act* (42 U.S.C. 247d-3a), which supports activities related to countering potential terrorist threats to civilian populations. Funding is provided under the *Consolidated Appropriations Act, 2004* (Public Law 108-199).

Certain federal regulations and financial guidelines also govern these funds, as noted in the official Notice of Grant Award. These guidelines include A-133 audit requirements and adherence to Title 45 CFR parts 74 or 92, as applicable.[2] The administrative and funding instrument to be used for this

[1] A health care system's ability to rapidly expand beyond normal services to meet the increased demand for qualified personnel, medical care, and public health in the event of bioterrorism or other large-scale public health emergencies or disasters.

[2] Title 45 CFR Part 74 establishes uniform administrative requirements governing: (1) HHS grants, cooperative agreements, and sub-awards to institutions of higher education, hospitals, other nonprofit organizations and only to commercial organizations in instances other than those involving procedures to make data available under the *Freedom of Information Act*; and (2) HHS grants, cooperative agreements, and sub-awards awarded to carry out entitlement programs. Title 45 CFR Part 92 establishes uniform administrative requirements for federal grants, cooperative agreements, and sub-awards to state, local, and Indian tribal governments.

program is the cooperative agreement, under which HRSA supports activities of awardees through a Memorandum of Agreement (MOA).

HRSA Priorities and Critical Benchmarks

In order to demonstrate minimal levels of readiness, six Priority Areas were established, as follows:

Priority Area	
Number 1	Administration
Number 2	Regional Surge Capacity for the Care of Adult and Pediatric Victims of Terrorism and Other Public Health Emergencies
Number 3	Emergency Medical Services
Number 4	Linkages to Public Health Departments
Number 5	Education and Preparedness Training
Number 6	Terrorism Preparedness Exercises

Within each priority area are critical benchmarks, which represent the minimum standard that must be achieved from recipient activities, within the specified budget period, to demonstrate readiness. The critical benchmarks are listed below:

- *Critical Benchmark Number 1*: Financial Accountability
- *Critical Benchmark Number 2-1*: Surge Capacity: Beds
- *Critical Benchmark Number 2-2*: Surge Capacity: Isolation Capacity
- *Critical Benchmark Number 2-3*: Surge Capacity: Health Care Personnel
- *Critical Benchmark Number 2-4*: Surge Capacity: Advance Registration System
- *Critical Benchmark Number 2-5*: Surge Capacity: Pharmaceutical Caches
- *Critical Benchmark Number 2-6*: Surge Capacity: Personal Protective Equipment
- *Critical Benchmark Number 2-7*: Surge Capacity: Decontamination
- *Critical Benchmark Number 2-8*: Surge Capacity: Behavioral (Psychological) Health
- *Critical Benchmark Number 2-9*: Surge Capacity: Trauma and Burn Care
- *Critical Benchmark Number 2-10*: Surge Capacity: Communications and Information Technology
- *Critical Benchmark Number 3*: Emergency Medical Services
- *Critical Benchmark Number 4-1*: Hospital Laboratories
- *Critical Benchmark Number 4-2*: Surveillance
- *Critical Benchmark Number 5*: Education and Preparedness Training
- *Critical Benchmark Number 6*: Terrorism Preparedness Exercises

Because public health emergency preparedness requires that state and local public health departments, hospitals, and other healthcare entities be able to mount a collective response that is a well-integrated and seamless interaction of their specific capabilities, additional Cross-Cutting Critical Benchmarks were established by HHS, based on both the HRSA and CDC cooperative agreements. Such integration of efforts would include coordination of hospital and public health preparedness activities with those of public safety and emergency management agencies, which would provide for an integrated and coordinated response to a bioterrorist attack, an outbreak of infectious disease, or other public health emergency.[3]

Grant Award

The HRSA program provides funding to all 75 acute care hospitals in the Commonwealth. There are six hospital regions, as well as six Hospital Regional Coordinators (one per region). The regions and the federal fiscal year 2004 funding are as follows:

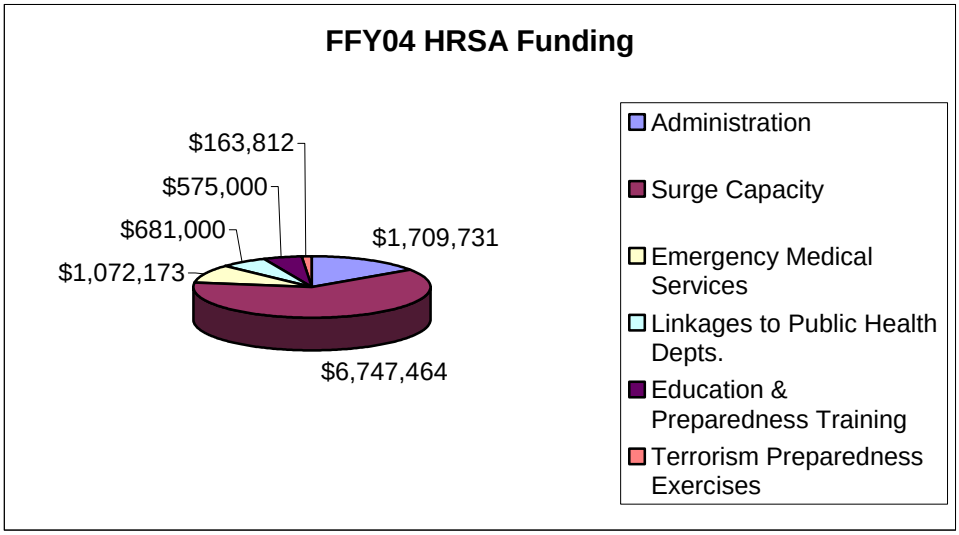
Region	Population*	Number of Hospitals	Funding
1 – West	807,020	11	$ 625,422
2 – Central	900,555	11	648,666
3 – Northeast	1,253,517	12	701,129
4(a/b) – Metro North/South	1,554,398	16	938,756
4(c) – Boston	589,141	12	821,279
5 – Southeast	1,275,099	13	848,661
Total	6,379,730	75	$4,583,913

*Based on 2000 U.S. Census Information

In addition to the hospital regions, there are five regional Emergency Medical Services (EMS) councils, including Mass Casualty Incidents and Ambulance Task Force, to which funds are allocated. The remainder of the HRSA funding, after the hospital allocation, is distributed to fire departments, community health centers, state hospitals, and other state agencies (i.e., Massachusetts Emergency Management Agency (MEMA), Department of Conservation and Recreation (DCR), Department of Fire Services (DFS). Department of Mental Health (DMH), Visiting Nurse Association (VNA), and Poison Control Center), and provides for mass decontamination units and services for communications, special populations, and burn trauma. To receive funding from

[3] An occurrence or imminent threat of exposure to an extremely dangerous condition or a highly infectious or toxic agent, including a communicable disease, that poses an imminent threat of substantial harm to the population, or any portion thereof.

HRSA, the recipients directly purchase goods and services to meet the critical benchmarks mandated by HRSA. In federal fiscal year (FFY) 2004, HRSA funding was $10,949,180. The funds were allocated to the above-mentioned priority areas as follows:



Our review included testing within all six priority areas, with site visits taking place within the Emergency Medical Services area.

Centers for Disease Control and Prevention (CDC)

CDC was designated as the entity responsible for improving state and other eligible entity preparedness and response capabilities for bioterrorism and other public health emergencies through the Public Health Preparedness and Response Program, authorized under Sections 301(a), 317(k)(1)(2), and 319 of the *Public Health Service Act* [42 U.S.C. Sections 241(a), 47b(k)(1)(2), and 247(d)]. CDC, under Program Announcement 99051, initiated a cooperative agreement program to fund states and major public health departments to help upgrade their preparedness capacities in the event of a bioterrorist act. In 2002, Congress authorized funding to support activities related to countering potential biological threats to civilian populations under the *Department of Defense and Emergency Supplemental Appropriations for Recovery From and Response to Terrorist Attacks on the United States Act, 2002, Public Law 107-117*. Funds were awarded to states and major local public health departments under Program Announcement 99051-Emergency Supplemental. Certain federal regulations and financial guidelines also govern these funds, as noted in the official Notice of Grant Award. These guidelines include A-133 audit requirements and adherence to Title 45 CFR parts 74

or 92, as applicable. The administrative and funding instrument to be used for this program is the cooperative agreement.

CDC Focus Areas, Critical Capacities, and Critical Benchmarks

Public health preparedness within CDC is categorized using the following Focus Areas:

Focus Area	
A	Preparedness Planning and Readiness Assessment
B	Surveillance and Epidemiology Capacity
C	Laboratory Capacity – Biologic Agents
D	Laboratory Capacity – Chemical Agents
E	Health Alert Network/Communications and Information Technology
F	Risk Communication and Health Information Dissemination
G	Education and Training

Within each Focus area, public health preparedness activities address Critical Capacities and Critical Benchmarks. Critical Capacities are the core expertise and infrastructure to enable a public health system to prepare for and respond to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies. Critical Benchmarks are milestones on the road to public health emergency preparedness. HHS places a high priority on their attainment and regards their successful implementation as an important indicator of progress and adequate preparedness.

Cross-Cutting Critical Benchmarks

Public health emergency preparedness also requires that state and local health departments, hospitals, and other health care entities be able to mount a collective response featuring seamless interaction of their event-specific capabilities. In order to implement a unifying, jurisdiction-wide strategy and ensure that all preparedness activities are coordinated and integrated at the state and local levels, Cross-Cutting activities and Cross-Cutting Critical Benchmarks were established and identically presented in both the HRSA and CDC cooperative agreements (see Appendix D).

Cross-Cutting Critical Benchmarks	
Number 1	Incident Management
Number 2	Joint Advisory Committee for CDC and HRSA Cooperative Agreements
Number 3	Laboratory Connectivity
Number 4	Laboratory Data Standard
Number 5	Jointly-Funded Health Department/Hospital Activities
Number 6	Preparedness for Pandemic Influenza

In this way, activities by both the public health community and the healthcare community will be well integrated, both vertically (between state and local activities) and horizontally (between public health and hospital/healthcare system activities). In addition, integration of efforts must also include coordination of hospital and public health preparedness activities with those of homeland security, public safety, and emergency management agencies, especially with respect to activities funded by HHS or other federal agencies. It should be noted that several Focus Areas, such as information technology, training/education, risk communication, and public information, are fundamental to all bioterrorism and public health preparedness efforts and therefore are cross-cutting in nature.

Grant Award

The CDC program provides funding to all 351 cities and towns in the Commonwealth. There are six emergency preparedness regions, for purposes related to public health emergency preparedness and response planning. The regions, and the FFY2004 funding, are designated as follows:

Public Health Emergency Preparedness Funds (Year One)
CDC – Funds Distributed by Region

Region	Number of Cities/Towns**	Population*	Funding
1 – Western	96	799,075	$ 489,479
2 – Central	74	864,655	527,440
3 – Northeast	48	1,214,480	740,833
4(a) – Metro West	34	620,606	378,570
4(b) – Metro Boston	27	981,396	598,652
5 – Southeast	71	1,279,782	780,667
Total	350		$3,515,641

**Based on population data from the 2000 U.S. Census*

Note: This table does not include Region 4c, the city of Boston, since a separate contractual agreement has provided $2.3 million in funding to the Boston Public Health Commission for emergency planning.

The Commonwealth will fund regional activities for public health emergency preparedness and response planning by forming regional emergency preparedness coalitions to enhance communities' collective capacity to share resources to respond to public health threats and emergencies, including bioterrorism and other outbreaks of infectious disease. Therefore, the $3.5 million in funds listed above will be distributed to 15 coalitions (listed below), rather than to each city and town. Once a city/town agrees to be a part of an assigned coalition, it would then be able to participate in decisions on the use of funding, during which time the needs of each city/town will be considered in

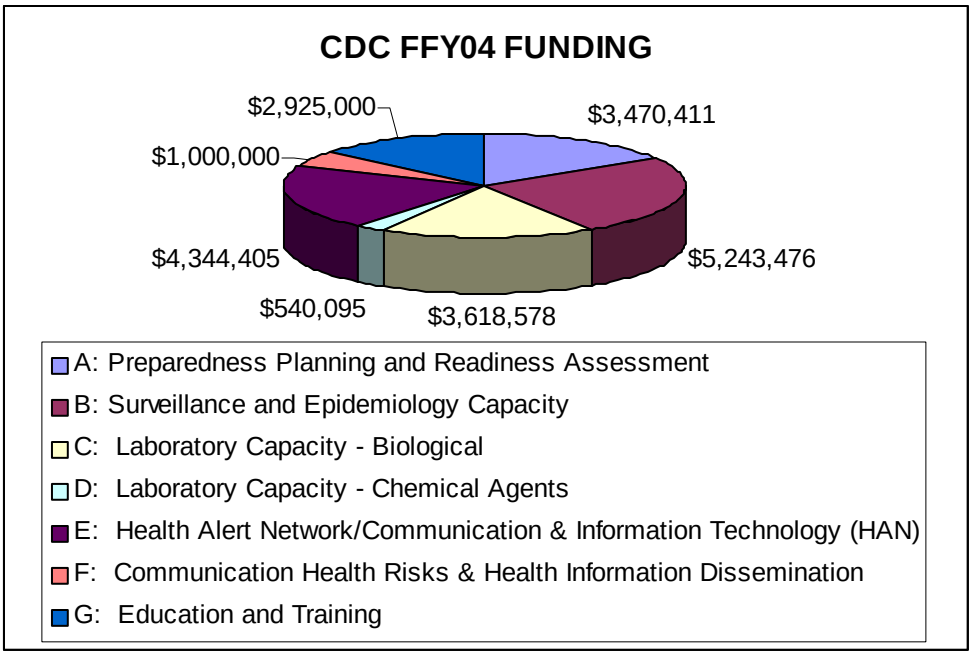
the regional planning process. In addition, each city/town will also receive a direct portion of the funding for specific local activities. The regional health coalitions, and their FFY2004 funding, are listed below:

CDC – Regional Health Coalitions
Federal Fiscal Year 2004 Distribution of Funds

Coalition	Number of Cities/Towns	Funding
Berkshire County	30	$ 81,287
Franklin County	26	42,568
Hampshire County	22	92,946
Hampden County	18	272,678
Worcester County	74	527,440
North Shore Health	14	104,400
Greater Lawrence	7	136,254
Upper Merrimack Valley	7	163,025
North Shore – Cape Ann	15	223,534
Mystic Valley	5	113,620
Metro West	34	378,570
Metro Boston	27	598,652
Cape and the Islands	23	150,510
Bristol County	24	363,302
Plymouth County	24	266,855
Total	350	$3,515,641

Each coalition is expected to work collaboratively to assess and monitor regional emergency planning and response needs and make funding decisions to enhance regional planning and response capacity; be accountable and responsible for the use of CDC funding; share knowledge, lessons learned, and best practices throughout the Commonwealth by participating in regional and statewide meetings; and coordinate efforts to further emergency preparedness with other existing regional and local entities and plans (e.g., MEMA activities). Each regional public health coalition has identified a Host Agency that shall serve as the fiscal and administrative agent for the coalition. As the fiscal/administrative agent, the Host Agency must be fiscally solvent and have a track record of fiscal and administrative responsibility and accountability, must be an incorporated/governmental entity eligible to do business in the Commonwealth of Massachusetts, will need to complete contracting paperwork, and is expected to provide coordination and administrative support to the coalition. The Host Agency is eligible to receive up to 15% administrative overhead from coalition funds. The Host Agency is required to provide written interim progress reports on spending, as well as a final progress report on actual expenditures, to demonstrate how the budget is tied directly to the deliverables, which at all times must be consistent with CDC guidance.

The CDC program directly purchases goods and services for the purpose of and intent to achieve the benchmarks of the CDC funding. In FFY2004, CDC funding was $21,141,965, distributed as follows:



Audit Scope, Objectives, and Methodology

In accordance with Chapter 11, Section 12, of the Massachusetts General Laws, the Office of the State Auditor (OSA) conducted an audit of DPH's use of Homeland Security Bioterrorism Grants for the period July 1, 2004 through December 31, 2005. Our audit was conducted in accordance with applicable generally accepted government auditing standards for performance audits. The purpose of our review was to examine DPH's management and accountability of bioterrorism funds and to determine whether a monitoring system is in place to adequately ensure that grant funds are being expended in compliance with grant requirements and applicable laws, rules, and regulations.

Our review focused on activities and requirements detailed in the cooperative agreements with CDC and HRSA, which fall within HHS. Both programs were tested for compliance with various critical benchmarks.

The critical benchmarks within the CDC cooperative agreement fall within seven separate Focus Areas and 16 critical capacities (see Appendices A and B). We reviewed *Focus Area A: Preparedness Planning and Readiness Assessment*, and tested the achievement of the goals and objectives for the

financial accountability critical benchmark, which requires the awardees to "develop and maintain a financial accounting system capable of tracking expenditures by focus area, critical capacity, and funds provided to local health agencies." This test included a review of systems capable of tracking expenditures, budget documentation, regular progress report submission, financial status reports, and year-end accountability of funds. Our review also included a review of *Focus Area E: Health Alert Network/Communications and Information Technology*, and tested for the achievement of effective communications connectivity among public health departments, healthcare organizations, and other related community groups. Our methodology included tracing the award received by DPH through the regional offices to the district offices, or "regional coalitions," and finally to the local boards of health.

For the HRSA program, critical benchmarks fall within six Priority Areas (See Appendix C). Our review of the agreement with HRSA also included a test of the achievement of the goals and objectives for the financial accountability critical benchmark, which fell within *Priority Area Number 1: Administration*. This test included a review of systems capable of tracking expenditures, budget documentation, regular progress report submission, financial status reports, and year-end accountability of funds. The remainder of our review was limited to emergency medical services and the statewide mutual aid plan for deploying EMS units in the event of a mass casualty event due to terrorism, which fell within *Priority Area 3: Emergency Medical Services*. Our methodology included tracing the award received by DPH through Memorandum of Agreement with the regional offices and EMS councils to the local emergency medical services contractor.

During our review, we also took into account *Cross-Cutting Critical Benchmarks* (See Appendix D), which are high-priority milestones that required joint activities under both the CDC and HRSA bioterrorism cooperative agreements, and a coordinated effort to integrate recipient activities within the jurisdiction (i.e., between state and local jurisdictions, among local agencies, and with hospitals and major health care entities).

Overall, we reviewed grant agreements, contracts, expenditure documentation, performance reports, financial records, policies, procedures, and relevant supporting documentation. We interviewed HHS officials, DPH management and staff, contractors, local officials, and other individuals as relevant. We physically inspected equipment supporting the Mass Health Alert Network (HAN),

equipment purchased by regional and local health departments, and equipment purchased for the EMS mass casualty event units.

Our audit methodology consisted of collecting data, performing selected tests and other procedures, analyzing and evaluating results against established criteria, and conducting interviews with department management and staff, as well as local sub-recipients. We performed site visits to assess contract compliance and use of funds, as well as performance associated with bioterrorism grant contract deliverables. In addition, we performed physical inspections and user tests to assess security and user access to HAN. We also conducted electronic surveys of the 15 regional health coalitions to gather data on their grant funds received and fiscal processes being utilized. Our test of compliance with federal requirements included an assessment of controls over cash management and sub-recipient monitoring, tests of financial and performance reporting, and a review of internal controls.

Our review indicated that, except for the issues disclosed in the Audit Results section of this report, DPH's management has properly accounted for bioterrorism funds and developed a monitoring system to adequately ensure that grant funds are being expended in compliance with grant requirements and applicable laws, rules, and regulations.

AUDIT RESULTS

1. NONCOMPLIANCE WITH PROVISIONS AND RESPONSIBILITIES OF MEMORANDUM OF AGREEMENT CONCERNING FUNDS TO MAINTAIN MASS CASUALTY INCIDENT TRAILERS

The Massachusetts Department of Public Health (DPH) was awarded funds by the U.S. Department of Health Resources and Services Administration (HRSA), under the National Bioterrorism Hospital Preparedness Program, for the purpose of preparing hospitals and supporting health care systems to deliver coordinated and effective care to victims of terrorism and other public health emergencies. Specifically, the cooperative agreement entered into by DPH called for the development of a mutual aid plan for upgrading and deploying EMS units in response to a mass casualty incident due to terrorism and infectious disease outbreak.

In order to carry out the above objective, DPH entered into a Memorandum of Agreement (MOA) with contractors (regional EMS Councils and Host Locations) which agreed to the following:

- DPH will purchase ten mass casualty incident (MCI) trailers with associated equipment and will transfer ownership of the trailers to each of the five Massachusetts EMS Regional Councils.
- DPH will provide annual funding in the amount of $14,000 to each EMS Council for the purposes of registering each MCI trailer registration and deployment, restocking equipment, trailer maintenance, and insurance costs.
- Each contractor must follow activation and deployment guidelines as stipulated.
- Each contractor shall promptly notify, in writing, all municipalities within its EMS Region about the availability, locations, and purpose of the MCI trailers. This notification shall include emergency contact information for all Host Locations and will be forwarded to DPH.
- Each contractor, on a biannual basis, shall prepare a fiscal report detailing the expenditure of funds on the management and functioning of the MCI trailers.
- Each Host Location shall be responsible for providing sheltered storage for the unit, deploying the MCI trailer in the event of an emergency, having staff available to deploy the trailer, and participating in periodic drills and exercises that involve the use of the trailer and equipment.
- Each Host Location shall ensure that the MCI trailers are maintained in a constant state of readiness and shall develop a checklist that includes all equipment items to be

reviewed on a monthly basis and submitted to the regional EMS Council, which shall review and approve the list.

- Each Host Location shall keep a log of all activities relating to the MCI trailers (e.g., deployment, maintenance checks) and shall furnish periodic reports to DPH upon request.

- Any change in location of a MCI trailer must be communicated in writing between DPH, the regional EMS Council, and the Host Location at least 30 days prior to the desired location change.

- A Standard Operating Procedure (SOP) shall be developed by the regional EMS Council and the Host Location for the MCI trailer. This SOP shall follow a standard template format and include detailed instructions on trailer activation and deployment, guidelines for reporting to an incident scene, reporting formats and schedules, and maintenance of the trailer and equipment.

- DPH shall approve this template no later than one month after the agreement is signed and will require that each regional EMS Council and each Host Location forward a signed copy of the SOP to DPH.

We selected for our review a MOA between DPH, one regional EMS Council, and two host locations for the MCI trailers. Our review found that the MOA was not followed in its entirety. Specifically, the following provisions and responsibilities were not met:

- All municipalities within the region had not been notified of trailer availability, location, and purpose.

- A biannual fiscal report on the expenditures of funds had not been provided.

- Trailer storage locations were not as stated in the signed MOA.

- Periodic drills and/or exercises that involve the use of the MCI trailer and equipment had not taken place.

- Periodic maintenance of the MCI trailers and equipment did not take place to ensure that the trailers were in a constant state of readiness.

- Reporting obligations regarding all trailer activities (i.e., deployment, maintenance checks, etc.) had not been met.

- Change of Hosting Location procedures had not been followed.

- A Standard Operating Procedure had not been developed.

We conducted a site survey of the MCI trailers at two Host Locations for the purpose of conducting an inventory test of the trailers and equipment and determining compliance with other provisions of the MOA. In one instance, the MCI trailer was not at either the location specified in the MOA or at the secondary location that was added to a copy of the MOA. Moreover, once the Host Agency was able to determine where the trailer was located, it could not be accessed, since the only personnel with the keys were unavailable. We eventually returned to a third site and were able to conduct our inventory test. The items to be located included:

Item	Cost
Trailer	$17,009.65
Generator	2,800.00
Motorola CMED Radio	1,960.00
Tent	1,621.00
Hooded PAPR MSA No. 10041550 (2)	1,360.00
Pod storage unit (2)	1,360.00
AME-401 MCI Management Kit	599.95
Multi-Dial Outlet (2)	442.08
Binoculars (2)	398.00
48-piece Tool Kit	300.00
Total	$27,850.68*

*Represents 66% of total cost of trailer and equipment.

All items were located, with the exception of the storage pods, which were temporarily used at the EMS Council site when the trailer contents were delivered. In addition, the equipment on hand had been tested and was operational, and the MCI trailer itself was housed in a facility rather than left outdoors. Other items on hand included standard medical supplies and equipment, which had been unpacked and sorted, thus rendering the unit serviceable and in a state of readiness, as required according to the Host Agency.

The second MCI unit that was visited was at the stipulated location and was accessible for our site survey. However, its contents had not been unpacked and sorted, nor had any of its equipment been tested for use. We eventually were able to locate the items on the inventory test list, although this involved the opening and unpacking of boxes. Again, the only exception was the storage pods. The trailer itself was kept outdoors, which made the condition of the medical supplies and equipment inside susceptible to weather/climate conditions. It did not appear that this trailer was in a state of readiness as required in the MOA.

As a result of the above conditions, the objective of the signed agreement between DPH, the EMS Councils, and the Host Locations could not be adequately met. One objective of the MOA was:

> *…to develop a mutual aid plan for upgrading and deploying Emergency Medical Service (EMS) units in jurisdictions they do not normally cover in response to a mass casualty incident due to terrorism. To accomplish this objective, DPH established an EMS workgroup to make recommendations regarding training and equipment needs for EMS personnel.*

This noncompliance with the MOA indicates a weakness in the internal control elements of monitoring and reporting within DPH's Center for Emergency Preparedness (CEP) administration of this bioterrorism grant. As a result of the monitoring weakness, DPH was not aware that the provisions and responsibilities of the MOA between it, one regional EMS council, and two Host Locations had not been met with regard to the MCI trailers. Additionally, the reporting requirements for the MCI trailers were not followed, since DPH did not approve, as required, a standard operating procedure as developed by the EMS councils, its contracted oversight party, which would include reporting responsibilities, formats, and schedules.

The Massachusetts Management Accounting and Reporting System Policy, dated November 1, 2006, regarding Procurement/Contracts over State Grants and Federal Sub-Grants, states, in part:

> *Internal Controls*
>
> *Departments shall develop internal control procedures to ensure that grants are disbursed in accordance with 815 Code of Massachusetts Regulations 2.00, Comptroller policies and procedures and other requirements of law. Departments granting federal funds must insure appropriate grantee (sub-recipient) monitoring to ensure that funds are spent in accordance with the federal grant award, as specified in Office of Management and Budget Circular A-133.*

MMARS Policy regarding Internal Controls, issued July 1, 2004, as pertains to Sub-recipient Monitoring Policy, states, in part:

> *Executive Summary: …Department management must continue to monitor the entities to which they grant their federal funds….*
>
> *Considerations: …continued access to Federal funds will be at risk unless agencies maintain careful management and monitoring of sub-recipients…*

Policy: State departments that accept federal funds are responsible for monitoring the use of those funds, even when the grants are passed through to one or more non-profit providers or other government agencies (sub-recipients)…the department is responsible for sufficient oversight of the funds to ensure funds are spent in accordance with federal grant requirements…

Internal Controls: Sub-recipient monitoring is a crucial internal control function, required by federal granting agencies. Reporting requirements for sub-grantees become part of the grant agreement and are monitored on a regular basis.

DPH reported that it has one full-time employee, whose function is to interface with all five EMS Councils under contract with DPH. DPH does not have direct contact with the Host Locations for the MCI trailers; rather, its contact is limited to the EMS Council, with which it contracts for services. These EMS councils, not DPH, have direct contact with and oversight responsibility over the EMS Host Locations. DPH indicated that the above condition resulted from a lack of sufficient personnel to monitor this particular area. However, it acknowledged that it is ultimately responsible for ensuring that the contractor is adequately carrying out the terms of the MOA.

Recommendation

DPH, along with the EMS Councils and Host Locations, should implement a corrective action plan to ensure compliance with all provisions and responsibilities outlined in the MOA, thereby ensuring that its objectives can and will be accomplished. Additionally, DPH must establish an adequate monitoring and reporting function to further enhance contract compliance with bioterrorism grant provisions and responsibilities.

Auditee's Response

In its response, DPH indicated that corrective measures have been implemented as follows:

- *The Region in question has offered information via a website and additionally, each community was provided access, via that site, to an emergency response resource guide. This allows and ensures that all local municipalities and others within the Region were informed of the commodities available resulting in broad awareness of the availability, location and purpose of the MCI trailers. Other Regions also have established websites and other broadly effective communications methodologies. The regional central medical emergency dispatch centers (CMEDS) are also now aware of the availability of MCI trailers and in addition, the Massachusetts Emergency Management Agency(MEMA) as the principal coordinating agency of the Commonwealth in a disaster is also fully aware of these trailers.*

- *All Regions have submitted fiscal reporting and these reports are on file with MDPH.*

- *The filing of information regarding change of hosting locations from field offices to the central office is accurately maintained, and the corrective action is ongoing.*

- *Each EMS Region has now engaged at least one trailer in either a drill or exercise. Training has also occurred statewide.*

- *The EMS Councils, as the primary contracted party to the Department, have also become acutely aware of the responsibilities inherent with this initiative and will refocus attention to their ongoing monitoring of the subcontracted relationships they each have with their respective host locations. EMS Councils will enhance their monitoring of host location field activities to ensure all tenets of the subcontract agreements are achieved.*

- *EMS Councils are responsible for ensuring import of field information [reporting obligations of trailer activities] and export of that information to MDPH Central Offices [...] through enhanced communication between MDPH program FTE and EMS Council, this activity and reporting of the activity is now ongoing and will continue to be performed.*

- *Standardized procedures including activation, dispatch, and communication plans and procedures, have been developed and prepared in writing, and all EMS Councils have possession of and do follow those standards. The EMS Councils have directed the host locations, as their subcontractors, to comply with and follow the standard operating procedures.*

2. FISCAL PROTOCOL NOT ESTABLISHED BY DPH FOR USE BY REGIONAL HEALTH COALITIONS

DPH was awarded funds by the U.S. Centers for Disease Control and Prevention (CDC) for the purpose of upgrading state and local public health jurisdictions' preparedness for and response to bioterrorism, outbreaks of infectious disease, and other public health threats and emergencies. The cooperative agreement calls for a coordination of activities at both the state and local levels in order to demonstrate consensus, approval, or concurrence between state and local public health officials for the proposed use of these funds.

In order to carry out this objective, the DPH Center for Emergency Preparedness worked closely with local boards of health to develop regional health coalitions for public health emergency planning and preparedness. The purpose of the regional coalitions was to facilitate planning and the sharing of resources, which is vital to the success of emergency preparedness, public health planning, and response in the state.

DPH awarded grants to six Emergency Preparedness Regions in the Commonwealth for purposes related to regional public health emergency preparedness and response planning. The regions then distributed the funds to 15 regional health coalitions established statewide that

encompass local health authorities for each city and town in the state. The intended use of this funding was to support local public health authorities in the development and expansion of existing infrastructures by providing resources to be used as determined by the regional coalitions for public health preparedness and response needs. Activities undertaken by the regional coalitions with these funds must be in accordance with the Critical Capacities outlined in the *Centers for Disease Control and Prevention's (CDC) Cooperative Agreement on Public Health Preparedness and Response for Bioterrorism.* These activities would include preparedness planning and readiness assessment, surveillance and epidemiology capacity, communications and information technology, risk communication, and education and training. Funds awarded through this grant process are to be expended by or at the discretion of the regional health coalitions in accordance with the Critical Capacities outlined in the Cooperative Agreement, and may not be used to supplant existing local public health staff, equipment, or services.

Each regional health coalition designated a *Host Agency*, which acts as the fiscal and administrative agent for the coalition. The Host Agency provides coordination and administrative support, disburses funds as authorized by the region, maintains documentation of all disbursements, and provides progress reports as specified by DPH.

In fiscal year 2004, $3.5 million in funding was provided to DPH for the purpose of assisting regional health coalitions in emergency preparedness planning. DPH distributed funds to each of the coalitions within each region via the host agency for that coalition in the form of allotment, calculated by using a population-based formula for each city and town (based on the 2000 Census). It then is the responsibility of the host agency to oversee the expenditure of funds for each local public health authority to be used on emergency preparedness activities. The Host Agency then disburses funds directly to each local board of health, makes purchases within their own agency on behalf of a specific local board, and/or initiates group purchases that would benefit the coalition as a whole.

In addition to the above grant, $2,000 was provided to each city and town for the specific purpose of acquiring computer equipment necessary to ensure accessibility to the MassHealth Alert Network (HAN). The CDC Bioterrorism Cooperative Agreement stipulates that local boards of health have continuous high-speed Internet access for the notification and collaboration of information relative to emergency response activities. This funding was

intended to provide the necessary equipment to the local boards of health to ensure compliance with this requirement.

As part of our review, we selected one regional health coalition to examine and review details of contracts between coalitions and DPH; interviewed the regional director of the coalition regarding fiscal policies and procedures; conducted a site visit to a host agency to review grant disbursements to local boards of health, including $2,000 grants specifically earmarked for purchase of computer equipment to connect to HAN; conducted inventory tests of major equipment purchases by the host agency and local boards of health; and reconciled grant funds between the local boards of health, the coalition host agency, and the DPH at the close of the grant cycle. In addition, we gathered data via survey questionnaire responses from all fifteen regional health coalitions statewide regarding their funding amounts, distribution, and expenditure procedures used, computer purchases for HAN, and problems/suggestions regarding fund-distribution methods. During our site visit to a selected regional health coalition, we found that programmatic objectives as outlined in the cooperative agreement had been met, as evidenced by the significant amount of emergency preparedness measures and planning activities that had taken place, supported by comprehensive documentation, education, and training. In order to determine whether fiscal objectives had been met as outlined in the cooperative agreement, we reviewed the Fiscal Report submitted to DPH at the end of fiscal year 2004 and tested transactions used in compiling the report. This review disclosed that DPH was not aware that two communities had not accepted or expended the $2,000 computer allocation that was a condition of a separate grant, that there were unexpended grant funds on hand at the end of fiscal year 2004 that were not included in any carry-over request of funding into the next fiscal year, and that two different fiscal procedures were used by the coalition in fiscal years 2004 and 2005 in an effort to determine the most efficient way to account for the use of the funds.

In fiscal year 2004, when DPH provided funding to each coalition for the purpose of obtaining computer equipment necessary for connectivity with HAN in fiscal year 2004, there was no central monitoring of coalition spending for this grant, and no reporting mechanism established by DPH to document the results of this spending, including a check for compliance with the provisions of the cooperative agreement. As a result, DPH was not aware that two communities within the coalition had not accepted the $2,000 grant, the effect of which left an unexpended

balance of $4,000 from that grant within the host agency. During our audit, we received verification from the two communities that confirmed their action, and included the explanation that they already possessed adequate computer equipment with the ability to access HAN, and therefore did not need the funds for that purpose. Because the coalition did not want to be left with an overage of funds totaling $4,000 that were mandated for computer equipment purchases, it decided to spend these funds on computer equipment for the host agency, (to be exclusively used by the host agency's program administrator and fiscal support staff for purposes of emergency preparedness), in order to be in compliance with the provisions of the grant.

Emergency preparedness funding for each regional health coalition is issued by DPH via a state contract. Once the funds are in the custody of the regional health coalition, it is the coalition's fiscal responsibility to make these funds available to the local communities. During fiscal year 2004, the coalition primarily used the advance method for the distribution of grant funds to local boards of health, which spent the funds independently pending approval by the host agency. There were also instances in which the host agency maintained custody of the funds on behalf of the local community, whose entire spending was done by the host agency. A review of the fiscal records disclosed several minor recording discrepancies between disbursements as reported by the local boards of health versus disbursements recorded by the host agency. However, because of the inconsistent spending methods used by each local board, as well as a weak reporting/monitoring mechanism by the host agency at that time, 10 of the 15 communities had a combined unexpended balance totaling $7,940 at the end of fiscal year 2004. Of this amount, $4,565 remained at the local communities, while $3,375 was on hand at the host agency. At the end of fiscal year 2004, the coalition requested assistance from DPH with the procedure to be used to either rollover this particular balance or have the funds returned to DPH from the local communities. Because this matter was not addressed or resolved by DPH, this fund balance was not reported or included in a carry-over request of funding into the next fiscal year, and the funds are still in custody of the local communities. We prepared a reconciliation of audited transactions to determine the exact amount to be returned to the host agency. When DPH made an attempt to collect one of the larger amounts, $2,077, from one local board of health; the board returned an incorrect amount, rather than the required reconciled balance, therefore leaving a residual balance due.

A summary of this activity is as follows:

Total Amount of Coalition's Fiscal Year 2004 Allotment	$253,534
Total Expenditures	245,594
Remaining Balance as of June 30, 2004	$7,940*

*On Hand at Host Agency	$3,375
At Local Communities	4,565
	$7,940

We also conducted an inventory test of major equipment purchased by the regional health coalition and local boards of health. The test sample was comprised of 56 assets, with an aggregate value of $55,561.09, located at six local boards of health and included such items as laptop computers, printers, desktop computers, monitors, digital cameras, scanners, radios, a personal digital assistant, and software for an ID badge system. The test sample was drawn from invoices rather than an inventory report, since DPH had not required the host agency to establish a cumulative fixed-asset report to monitor and report fixed assets purchased by the regional health coalition. Our audit tests, which involved locating the asset and verifying its use for bioterrorism purposes, noted no exceptions.

We also tested for connectivity to the HAN at the six local boards of health that were visited during the inventory test. In all cases, the communities were able to log on to the HAN utilizing a password, and between two and six employees had been trained to utilize the system. In addition, the two local communities that did not expend the funds from the HAN grant were also able to demonstrate that they could connect to the system, and had personnel properly trained to do so. There was no documentation that DPH had ever requested the host agency to verify compliance with the terms of the grant as it pertains to the purchase of equipment and the ability to connect to the network. However, our audit tests noted no exceptions.

Because DPH had not established fiscal protocol for use by the regional health coalitions and the emergency preparedness regions, we found that:

- Each coalition had established its own procedures for the spending and distribution of funds, using both the advance method and the reimbursement method;
- When local spending took place outside of the host agency, it was difficult for the coalition to effectively monitor and control it;

- Reporting of activity by the local boards needed to take place more regularly, not just at year-end; and

- There was no inventory control system in place to list fixed-asset purchases and their location, use, etc. and maintain control by the host agency over the equipment purchased with bioterrorism funds.

Again, the internal control elements of monitoring, reporting, and administration of this bioterrorism grant were not adequate within DPH's Center for Emergency Preparedness. DPH indicated that it was not aware that the fiscal objectives outlined in the cooperative agreement issued by the CDC had not been met in the area of establishment of fiscal protocol for use by the regional fiscal/administrative agents (i.e., regional health coalitions).

The CDC *Grantee's Financial Reference Guide for Managing CDC Grants and Cooperative Agreements* defines monitoring as:

> *…a process whereby the programmatic and business management performance of a grant are continuously reviewed through the collection and assessment of information gathered from the audit, financial, and progress reports; continuous applications; correspondence; grantee Board minutes; newspaper articles; site visits; and other sources. Monitoring also includes taking corrective action as needed.*

It also states that:

> *Grantees receiving Federal funds must use financial management systems that: will ensure Federal funds will be used appropriately; adequate documentation of transactions will be maintained; and assets will be safeguarded. The systems must satisfy these objectives by reporting financial results of grants, maintaining records on the source and use of grant funds, and safeguarding grant assets and funds. These systems must include accounting, property, procurement, and internal controls.*

Further, the grant regulations at 45 CFR 92.20 set forth minimum requirements for financial management systems, policies, and procedures for state and local governments. Among those required for state systems are measures sufficient to prepare required reports and trace funds to a level of expenditures adequate to establish that funds have not been used in violation of statutory restrictions. Local systems are required to maintain accounting records which identify the source and use of grant funds to include awards, obligations, un-obligated balances, assets, liabilities, expenditures, and income; to maintain internal controls that properly account for grant cash, property, and assets; and to ensure that these assets are used solely for authorized purposes.

Recommendation

DPH should establish a standard protocol for the fiscal administration of grant funds allocated to the six Emergency Preparedness Regions, the 15 regional health coalitions, and ultimately to the local boards of health receiving these funds. Fiscal responsibilities of the Host Agency for monitoring and reporting should be included in this protocol, including specific procedures for the distribution of funds to the local boards; a standardized type of expenditure procedure to be utilized (preferably a reimbursement method, rather than an advance method); and a year-end closing procedure whereby all unspent funds on hand at the close of the fiscal year will be accurately accounted for and reported for purposes of roll-over requests applicable to funding for the next fiscal year. In addition, DPH should establish a fixed-asset management system for proper inventory-control purposes and consider a role for the Host Agency to make group purchases as well as purchase on behalf of the local boards of health..

Auditee's Response

The [DPH] concurs with the recommendation of the SAO. Earlier this year, the Center for Emergency preparedness was reorganized, and the newly-formed Emergency Preparedness Bureau will fully integrate the programmatic and fiscal management of and accountability for bioterrorism funds. […] the [DPH] has already taken steps to address some of the concerns raised in this report, including developing and disseminating standard fiscal guidelines for Host Agencies and instituting regular communication between MDPH fiscal staff and Host Agency representatives to provide more timely oversight of fiscal matters. The Emergency Preparedness Bureau will review and expand these guidelines as necessary to ensure appropriate oversight, and will work with Host Agencies and regional coalitions to implement a standard inventory control system to be required of all recipients of funding.

APPENDIX A

Focus Areas For Public Health Preparedness

Focus Area A: Preparedness Planning and Readiness Assessment

Establish strategic leadership, direction, assessment, and coordination of activities (including Strategic National Stockpile Response) to ensure statewide readiness, interagency collaboration, local and regional preparedness (both intrastate and interstate) for bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies.

Focus Area B: Surveillance and Epidemiology Capacity

Enable state and local health departments to enhance, design, and/or develop systems for rapid detection of unusual outbreaks of illness that may be the result of bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies. Assist state and local health departments in establishing expanded epidemiologic capacity to investigate and mitigate such outbreaks of illness.

Focus Area C: Laboratory Capacity – Biologic Agents

Ensure that core diagnostic capabilities for bioterrorist agents are available at all state and major city/county public health laboratories. These funds will enable state or major city/county laboratories to develop the capability and capacity to conduct rapid and accurate diagnostic and reference testing for select biological agents likely to be used in a terrorist attack.

Focus Area D: Laboratory Capacity – Chemical Agents

Ensure that all state public health laboratories have the capacity to measure chemical threat agents in human specimens (e.g., blood, urine) or to appropriately collect and ship specimens to qualified Laboratory Response Network (LRN) partner laboratories for analysis, and also establish a network of public health laboratories for analysis of chemical threat agents as part of the LRN.

Focus Area E: Health Alert Network/Communications and Information Technology

Enable state and local public health agencies to establish and maintain a network that will (a) support exchange of key information and training over the Internet by linking public health and private partners on a 24/7 basis; (b) provide for rapid dissemination of public health advisories to

the news media and the public at large; (c) ensure secure electronic data exchange between public health partners' computer systems; and (d) ensure protection of data, information, and systems with adequate backup, organizational, and surge capacity to respond to bioterrorism and other public health threats and emergencies.

Focus Area F: Communicating Health Risks and Health Information Dissemination

Ensure that state and local public health organizations develop an effective risk communications capacity that provides for timely information dissemination to citizens during a bioterrorist attack, outbreak of infectious disease, or other public health threat or emergency. Such a capacity should include training for key individuals in communication skills, the identification of key spokespersons (particularly those who can deal with infectious diseases), printed materials, timely reporting of critical information, and effective interaction with the media.

Focus Area G: Education and Training

Ensure that state and local health agencies have the capacity to (1) assess the training needs of key public health professionals, infectious disease specialists, emergency department personnel, and other healthcare (including mental health) providers related to preparedness for and response to bioterrorism, other outbreaks of infectious disease, and other public health threats and emergencies; and (2) ensure effective provision of needed education and training to key target audiences through multiple channels, including Centers for Public Health Preparedness, other schools of public health, schools of medicine, other academic institutions, healthcare professionals, Centers for Disease Control, Health Resources and Services Administration, and other sources.

APPENDIX B

Critical Capacities Identified by the CDC

The U.S. Centers for Disease Control (CDC) specified the following critical capacities in the cooperative agreement with the Department of Public Health. The Department used this as an overall framework to organize its activities and strategies.

Focus Area A

Critical Capacity Number 1: To establish a process for strategic leadership, direction, coordination, and assessment of activities to ensure state and local readiness, interagency collaboration, and preparedness.

Critical Capacity Number 2: To conduct integrated assessments of public health system capacities related to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies to aid and improve planning, coordination, and implementation.

Critical Capacity Number 3: To respond to emergencies caused by bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies through the development, exercise, and evaluation of a comprehensive emergency preparedness and response plan.

Critical Capacity Number 4: To effectively manage the CDC Strategic National Stockpile (SNS) should it be deployed, translating SNS plans into firm preparations, conducting periodic testing of SNS preparedness, and conducting periodic training for entities and individuals that are part of SNS preparedness.

Focus Area B

Critical Capacity Number 5: To rapidly detect a terrorist event through a highly functioning, mandatory reportable disease surveillance system, as evidenced by ongoing timely and complete reporting by providers and laboratories in a jurisdiction, especially of illnesses and conditions possibly resulting from bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies.

Critical Capacity Number 6: To rapidly and effectively investigate and respond to a potential terrorist events as evidenced by a comprehensive and exercised epidemiologic response plan that addresses

surge capacity, delivery of mass prophylaxis and immunizations, and pre-event development of specific epidemiologic investigation and response needs.

Critical Capacity Number 7: To rapidly and effectively investigate and respond to a potential terrorist event, as evidenced by ongoing effective state and local response to naturally occurring individual cases of urgent public health importance, outbreaks of disease, and emergency public health interventions such as emergency chemoprophylaxis or immunization activities.

Focus Area C

Critical Capacity Number 8: To develop and implement a statewide program to provide rapid and effective laboratory services in support of the responses to bioterrorism, other infectious disease outbreaks, and other public health threats.

Critical Capacity Number 9: As a member of the Laboratory Response Network (LRN), to ensure adequate and secure laboratory facilities, reagents, and equipment to rapidly detect and correctly identify biological agents likely to be used in a bioterrorist incident.

Focus Area D

Critical Capacity Number 10: To develop and implement a statewide program that provides rapid and effective laboratory response for chemical terrorism by establishing competency in collection and transport of clinical specimens to laboratories capable of measuring chemical threat agents.

Focus Area E

Critical Capacity Number 11: To ensure effective communications connectivity among public health departments, healthcare organizations, law enforcement organizations, public officials, and others (e.g., hospitals, physicians, pharmacies, fire departments, 911 centers).

Critical Capacity Number 12: To ensure a method of emergency communication for participants in public health emergency response that is fully accessible with standard Telecommunications (telephone, e-mail, Internet, etc.).

Critical Capacity Number 13: To ensure the ongoing protection of critical data and information systems and capabilities for continuity of operations with IT functions.

Critical Capacity Number 14: To ensure secure electronic exchange of clinical, laboratory, environmental, and other public health information in standard formats between the computer systems of public health partners, and achieve this capacity according to the relevant IT Functions and Specifications.

Focus Area F

Critical Capacity Number 15: To provide needed health/risk information to the public and key partners during a bioterrorism event by establishing critical baseline information about the current communications needs and barriers within individual communities, and identifying effective channels of communication for reaching the general public and special populations during public health threats and emergencies.

Focus Area G

Critical Capacity Number 16: To ensure the delivery of appropriate education and training to key public health professionals, infectious disease specialists, emergency department personnel, and other health care providers in preparedness for and response to bioterrorism, other infectious disease outbreaks, and other public health threats and emergencies, either directly or through the use (where possible) of existing curricula and other sources, including schools of public health and medicine, academic health centers, CDC training networks, and other providers.

APPENDIX C

HRSA Priorities and Critical Benchmarks

Priority Area Number 1: Administration

Critical Benchmark Number 1: Financial Accountability

Priority Area Number 2: Regional Surge Capacity for the Care of Adult and Pediatric Victims of Terrorism and other Public Health Emergencies

Critical Benchmark Number 2-1: Surge Capacity: Beds

Critical Benchmark Number 2-2: Surge Capacity: Isolation Capacity

Critical Benchmark Number 2-3: Surge Capacity: Health Care Personnel

Critical Benchmark Number 2-4: Surge Capacity: Advance Registration System

Critical Benchmark Number 2-5: Surge Capacity: Pharmaceutical Caches

Critical Benchmark Number 2-6: Surge Capacity: Personal Protective Equipment

Critical Benchmark Number 2-7: Surge Capacity: Decontamination

Critical Benchmark Number 2-8: Surge Capacity: Behavioral (Psychological) Health

Critical Benchmark Number 2-9: Surge Capacity: Trauma and Burn Care

Critical Benchmark Number 2-10: Surge Capacity: Communications and Information Technology

Priority Area Number 3: Emergency Medical Services

Critical Benchmark Number 3: Emergency Medical Services

Priority Area Number 4: Linkages to Public Health Departments

Critical Benchmark Number 4-1: Hospital Laboratories

Critical Benchmark Number 4-2: Surveillance

Priority Area Number 5: Education and Preparedness Training

Critical Benchmark Number 5: Education and Preparedness Training

Priority Area Number 6: Terrorism Preparedness Exercises

Critical Benchmark Number 6: Terrorism Preparedness Exercises

APPENDIX D

HRSA/CDC Cross-Cutting Critical Benchmarks

In association with the Centers for Disease Controls (CDC) and U.S. Department of Health Resources and Services Administration (HRSA) FY03 cooperative agreements, the HHS Office of the Assistant Secretary for Public Health Emergency Preparedness prescribed six Cross-Cutting Critical Benchmarks as follows:

- *Cross-Cutting Critical Benchmark Number 1 - Incident Management:*

  This benchmark is intended to help states and local governments prepare for their eventual participation in the National Incident Management System (NIMS), which would cover all incidents for which the federal government deploys emergency-response assets.

- *Cross-Cutting Critical Benchmark Number 2 - Joint Advisory Committee for CDC and HRSA Cooperative Agreements:*

  Establish a single advisory committee to ensure that the CDC and HRSA cooperative agreements are complementary with respect to strategy and scope, feature mutually reinforcing provisions, and provide for the integration of public health departments and hospital community initiatives.

- *Cross-Cutting Critical Benchmark Number 3 - Laboratory Connectivity:*

  Establish operational relationships among the various types of analytical laboratories within the jurisdiction that are relevant to preparedness for and response to bioterrorism and other public health emergencies.

- *Cross-Cutting Critical Benchmark Number 4 - Laboratory Data Standard:*

  Adopt the Logical Observation Identifiers Names and Codes (LOINC), where applicable, as the standard codes for electronic exchange of laboratory results and associated clinical observation between and among clinical laboratories of public health departments, hospitals, academic health centers, and other entities that have a role in responding to bioterrorism and other public health emergencies.

- *Cross-Cutting Critical Benchmark Number 5 - Jointly-Funded Health Department/Hospital Activities:*

  Develop and maintain a database displaying activities funded jointly by the CDC and HRSA cooperative agreements and, as applicable, other sources.

-

Cross-Cutting Critical Benchmark Number 6 - Preparedness for Pandemic Influenza:

Planning by state and local health departments and by the health care system to ensure effective implementation of response activities and delivery of quality medical care in the context of increased demand for services as a result of an influenza pandemic.

Other Cross-Cutting Activities

- *Surveillance*: Integration of disease surveillance systems at the state and local levels that allows for electronic communication between hospitals and public health departments at all levels.

- *Coordination with Indian Tribes*: Provide complete documentation of Indian tribal government participation in state and local preparedness planning.

- *Populations with Special Needs*: Provide activities that will be implemented to meet the specific needs of special populations including people with disabilities, people with serious mental illness, minority groups, the non-English speaking, children, and the elderly. Such activities must be integrated between the public health and the hospital communities.

- *Planning for Psychosocial Consequences of Bioterrorism and Other Public Health Emergencies*: Efforts made by the state health department to work with state and local mental health agencies, hospitals, mental health providers, and public and private emergency response and social services entities to meet the psychosocial needs of victims, those at risk, their families, psychological casualties both with and without medical illness, and emergency responders (including healthcare personnel, public health professionals, EMTs, etc.).

- *Education and Training*: Activities that the health departments will undertake to train or ensure training of its staff and those in local health departments, hospitals, major community health care institutions, emergency response agencies, public safety agencies, etc. to respond in a coordinated manner in the event of a bioterrorist attack or other public health emergency to minimize duplication and fill gaps.

- *Involvement of Academic Health Centers*: Activities that the Department of Public Health will be undertaking to involve academic health centers (recognizing that they offer expertise and resources in health care delivery, education/training, and research) in their preparedness efforts.

- *Inoperability of IT Systems*: Measures that the state will be taking to ensure the connectivity and interoperability, both vertically and horizontally, of its various IT systems with those of local health departments, hospitals, emergency management agencies, public safety agencies, neighboring states, federal public health officials, and others.

- *Interstate Collaboration*: Activities by states and local health departments in jurisdictions sharing a border with one or more states to foster interstate collaboration and coordination, especially in high-population density areas along the state borders.

- *International Border States*: Efforts by state and local health departments in jurisdictions sharing an international border with Mexico or Canada to foster cross-border collaboration and coordination.