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United States Government Accountability Office  
Washington, DC 20548

March 23, 2007

The Honorable Bennie G. Thompson  
Chairman  
Committee on Homeland Security  
House of Representatives

The Honorable Judd Gregg  
Ranking Minority Member  
Committee on the Budget  
United States Senate

The Honorable Charles E. Grassley  
Ranking Minority Member  
Committee on Finance  
United States Senate

The Honorable Henry A. Waxman  
Chairman  
Committee on Oversight and Government Reform  
House of Representatives

The Honorable Edward J. Markey  
House of Representatives

Subject: *Public Health and Hospital Emergency Preparedness Programs:  
Evolution of Performance Measurement Systems to Measure Progress*

The September 11, 2001, terrorist attacks, the anthrax incidents during the fall of 2001, Hurricane Katrina, and concerns about the possibility of an influenza pandemic have raised public awareness and concerns about the nation's public health and medical systems' ability to respond to bioterrorist events and other public health emergencies. From 2002 to 2006, the Congress appropriated about \$6.1 billion to the Department of Health and Human Services (HHS) to support activities to strengthen state and local governments' emergency preparedness capabilities under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Preparedness and Response Act).<sup>1</sup> HHS has distributed funds annually to 62 recipients, including all 50 states and 4 large municipalities, through cooperative agreements under two programs—the Centers for Disease Control and

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<sup>1</sup>Pub. L. No. 107-188, 116 Stat. 594. The Pandemic and All-Hazards Preparedness Act, Pub. L. No. 109-417, 120 Stat. 2831 enacted December 19, 2006, reauthorized and amended the Preparedness and Response Act and authorized appropriations for HHS's Centers for Disease Control and Prevention's and Health Resources and Services Administration's public health and hospital preparedness programs through 2011.

Prevention's (CDC) Public Health Emergency Preparedness Program,<sup>2</sup> and the Health Resources and Services Administration's (HRSA) National Bioterrorism Hospital Preparedness Program. The common goal of CDC's and HRSA's preparedness programs is to improve state and local preparedness to respond to bioterrorism and other large-scale public health emergencies, such as natural disasters or outbreaks of infectious disease.

To guide efforts by federal, state, and local departments and agencies to prepare and respond to terrorism and other major emergencies, the federal government has developed a number of national strategies, including a National Strategy for Homeland Security, which was issued in July 2002.<sup>3</sup> Among other things, the National Strategy for Homeland Security requires federal government departments and agencies to create performance measures to evaluate progress in achieving homeland security initiatives, including national preparedness and emergency response, and to allocate future resources. Annually, both CDC and HRSA develop and issue program guidance for recipients that describes activities necessary to improve their ability to respond to bioterrorism and other public health emergencies and sets out requirements for measuring their performance. Each recipient is required to submit periodic reports that track progress in improving their preparedness.

As a result of the nation's ineffective response to Hurricane Katrina and the need to prepare for a possible influenza pandemic, members of the Congress have raised questions about CDC's and HRSA's efforts to monitor the progress of their preparedness programs. Because of these questions, we are reporting on (1) how CDC's and HRSA's performance measurement systems have evolved and (2) how CDC and HRSA are using these systems to measure the progress of their preparedness programs. Enclosure I contains the information we provided to your staff at our February 28, 2007, briefing.

To do our work, we reviewed and analyzed federal government documents related to national security and emergency preparedness. We also obtained reports and interviewed officials from federal agencies<sup>4</sup> that had evaluated CDC's and HRSA's public health and hospital preparedness programs, professional associations involved in emergency preparedness, and policy research organizations that had published assessments or evaluations of public health and hospital preparedness programs. We analyzed CDC and HRSA documents and interviewed officials to determine how they have developed and implemented performance management systems for their cooperative agreement programs, including recipient reporting requirements, and systems for collecting data from recipients. Additionally, we analyzed other CDC and HRSA documents to identify procedures in place for management review of program progress and for providing feedback and suggestions for program improvements to recipients. We did not evaluate the actual performance measures adopted by CDC or HRSA or examine the accuracy or completeness of recipients' self-reported data as contained in the progress reports they are required to submit to CDC or HRSA. See enclosure II for detailed information on our scope and methodology. We conducted our work from June 2006 through March 2007 in accordance with generally accepted government auditing standards.

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<sup>2</sup>CDC's program was formerly known as the Public Health Preparedness and Response for Bioterrorism Program.

<sup>3</sup>These strategies also include the National Strategy for Pandemic Influenza and the National Security Strategy.

<sup>4</sup>The federal agencies include HHS's Office of Inspector General (OIG), HHS's Agency for Healthcare Research and Quality (AHRQ), and the Congressional Research Service (CRS).

## Results in Brief

Since 2002, CDC's and HRSA's performance measurements have evolved from measuring capacity to assessing capability. Early in their programs, both agencies used markers or values that they called benchmarks to measure capacity-building efforts, such as purchasing equipment and supplies and acquiring personnel.<sup>5</sup> These benchmarks were developed from activities authorized in the Preparedness and Response Act. In 2002, CDC established 14 benchmarks, such as requiring each recipient to designate an executive director of the bioterrorism and response program, establish a bioterrorism advisory committee, and develop a statewide response plan. From 2003 to 2005, CDC further developed its performance measurements by obtaining input from stakeholders to make a transition from using benchmarks focused on capacities to using performance measures focused on capabilities, such as whether personnel have been trained and can appropriately use equipment. In 2006, CDC continued to work with stakeholders to refine its performance measures. At the beginning of its program in 2002, HRSA established 5 benchmarks, such as requiring each recipient to designate a coordinator for bioterrorism planning, establish a hospital preparedness committee, and develop a plan for hospitals to respond to a potential epidemic. From 2003 to 2005, HRSA modified existing benchmarks and added new ones, such as training benchmarks, based on the existing legislation and input from stakeholders. In 2006, HRSA convened an expert panel to propose a set of performance measures focused on capabilities. CDC and HRSA officials told us they will continue to face challenges as their performance measures evolve, such as gaining consensus among stakeholders in light of minimal scientific data about public health and hospital emergency preparedness.

CDC and HRSA use data from recipients' reports and site visits to monitor recipients' progress in improving their ability to respond to bioterrorism events and other public health emergencies. CDC and HRSA project officers use performance measurement data from recipients' required progress reports, along with site visits, to monitor progress and provide feedback about whether individual recipients have accomplished activities related to their ability to respond to bioterrorism events and other public health emergencies. Currently, there are no standard analyses or reports that enable CDC and HRSA to compare data across recipients to measure collective progress, compare progress across recipients' programs, or provide consistent feedback to recipients. However, in mid to late 2006 both agencies began developing formal data analysis programs that are intended to validate recipient-reported data and assist in generating standardized reports. According to CDC officials, CDC plans to finish validation projects by August 2007 and then develop routine reports summarizing individual recipient and national progress. In addition, CDC plans to issue a report by the end of 2007 providing a "snapshot" of the progress recipients have made in building emergency readiness capacity and addressing how CDC will measure capability in the future. However, because of the expected move of HRSA's program to a different HHS office in 2007, its schedule for finishing data validation was tentative at the time we briefed your staff. Furthermore, due to the expected move, HRSA officials said at that time that decisions about whether to issue a report in 2007 on recipients' progress also had not been made.

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<sup>5</sup>According to CDC officials, acquisition of personnel was necessary in order to develop and implement the activities authorized in the Preparedness and Response Act.

## Agency Comments

We requested comments on a draft of this report from HHS. The department provided written comments that are reprinted in enclosure III.

In commenting on this draft, HHS provided additional information about the transfer on March 5, 2007, of the National Bioterrorism Hospital Preparedness Program from HRSA to the new HHS Office of the Assistant Secretary for Preparedness and Response. According to HHS, it has made a number of changes that it believes will improve its ability to monitor performance at the individual recipient level and for the program overall. HHS is also planning to conduct an analysis of the performance data for existing recipients for fiscal years 2002-2006 in order to develop a more complete picture of levels of preparedness from all National Bioterrorism Hospital Preparedness Program recipients.

Many of the initiatives outlined in HHS' comments were begun after our briefings to your staff on February 28, 2007, and are still being implemented; we are unable to comment on their effectiveness. As we continue to evaluate emergency preparedness programs we will review the results of their continued efforts to develop measurable evidence-based benchmarks and objective standards and their ability to compare data across recipients to measure collective progress, compare progress across recipients' programs, or provide consistent feedback to recipients.

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As arranged with your offices, unless you release its content earlier, we plan no further distribution of this report until 30 days after its issuance date. At that time, we will send copies of this report to the Secretary of HHS and other interested parties. We will also make copies available to others on request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report.

If you and your staff have any questions or need additional information, please contact me at (202) 512-7101, or [bascettac@gao.gov](mailto:bascettac@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff members who made major contributions to this report are listed in enclosure IV.



Cynthia A. Bascetta  
Director, Health Care

Enclosures – 4

**Information Presented in Briefing on February 28, 2007**

The information in this enclosure is taken directly from the slides used in the briefing presented to the staffs of the Honorable Judd Gregg, Ranking Member, Senate Committee on the Budget; the Honorable Charles E. Grassley, Ranking Member, Senate Committee on Finance; the Honorable Bennie G. Thompson, Chairman, House Committee on Homeland Security; the Honorable Henry A. Waxman, Chairman, House Committee on Oversight and Government Reform; and the Honorable Edward J. Markey, House of Representatives on February 28, 2007.

**Introduction (slides 3 through 6)**

The September 11, 2001, terrorist attacks, the anthrax incidents, Hurricane Katrina, and concerns about the possibility of an influenza pandemic have raised public awareness and concerns about the nation's public health and medical systems' ability to respond to bioterrorist events and other public health emergencies. In November 2002, the Congress passed legislation creating the Department of Homeland Security (DHS), giving it the overall responsibility for managing emergency preparedness. The Department of Health and Human Services (HHS) is designated as the primary agency for implementing activities relating to public health and hospital emergency preparedness.

From 2002 to 2006, the Congress appropriated about \$6.1 billion to support activities under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Preparedness and Response Act) to strengthen state and local governments' emergency readiness capabilities. HHS has distributed these funds annually to 62 recipients, including all 50 states and 4 large municipalities, through cooperative agreements under two programs:

- Centers for Disease Control and Prevention's (CDC) Public Health Emergency Preparedness Program (formerly the Public Health Preparedness and Response for Bioterrorism Program), and
- Health Resources and Services Administration's (HRSA) National Bioterrorism Hospital Preparedness Program.

In addition to bioterrorism, these programs also address other large-scale public health emergencies, such as natural disasters or outbreaks of infectious disease. This "all-hazards" approach recognizes that some aspects of response to bioterrorism, such as providing emergency medical services and managing mass casualties, can be the same as for response to other public health emergencies.

Public Law 109-417, the Pandemic and All-Hazards Preparedness Act, enacted December 19, 2006, amended the Preparedness and Response Act and authorizes appropriations for CDC's and HRSA's public health and hospital preparedness programs through 2011. The legislation also creates a new Assistant Secretary for Preparedness and Response in HHS and transfers responsibility for HRSA's hospital preparedness program to this position. The program is expected to move some time in 2007. To guide preparedness and response for terrorism and other major emergencies, the federal government developed a number of national strategies,

including a National Strategy for Homeland Security issued in July 2002.<sup>6</sup> This national strategy requires federal government departments and agencies to create performance measures to evaluate progress in achieving homeland security initiatives, including national preparedness and emergency response, and to allocate future resources.

### **Purpose and Questions (slide 7)**

As a result of the nation's ineffective response to Hurricane Katrina and the need to prepare for a possible influenza pandemic, members of the Congress have raised questions about CDC's and HRSA's efforts to monitor the progress of their preparedness programs.

To assess CDC's and HRSA's systems to monitor these programs, we reviewed the following questions:

1. How have CDC's and HRSA's performance measurement systems evolved?
2. How are CDC and HRSA using these systems to measure the progress of their preparedness programs?

### **Scope and Methodology (slides 8 through 10)**

To do our work, we interviewed officials from

- HHS's Office of Public Health Emergency Preparedness (OPHEP), Office of the Assistant Secretary for Planning and Evaluation, Office of the Inspector General (OIG), and Agency for Healthcare Research and Quality (AHRQ);
- CDC's Coordinating Office for Terrorism Preparedness and Emergency Response;
- HRSA's National Bioterrorism Hospital Preparedness Program;
- Congressional Research Service; and
- professional associations involved in emergency preparedness and policy research organizations that had published assessments or evaluations of public health and hospital preparedness programs.

We also reviewed and analyzed documents from

- The Executive Office of the President, including the National Strategy for Homeland Security and Homeland Security Presidential Directives;
- DHS, including the National Response Plan, the Interim National Preparedness Goal, and the draft Target Capabilities List;
- HHS's OIG and AHRQ;

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<sup>6</sup>These strategies also include the National Strategy for Pandemic Influenza and the National Security Strategy.

- Congressional Research Service;
- Office of Management and Budget, including Program Assessment Rating Tool reviews;
- CDC and HRSA on the development of performance management systems and recipients' annual applications and progress reports; and
- professional associations and policy research organizations.

We did not evaluate the actual performance measures adopted by CDC or HRSA or examine the accuracy or completeness of recipients' self-reported data as contained in the progress reports they are required to submit to CDC or HRSA. Our review was conducted from June 2006 through March 2007 in accordance with generally accepted government auditing standards.

### **Background (slides 11 through 17)**

#### **CDC's and HRSA's Preparedness Programs**

The common goal of CDC's and HRSA's preparedness programs is to improve state and local preparedness to respond to bioterrorism and other public health emergencies.

- CDC's program focuses on public health preparedness.
- HRSA's program focuses on hospital preparedness.

CDC and HRSA annually distribute program funds to recipients. These funds are used to improve their ability to respond to bioterrorism and other public health emergencies, such as training volunteers to provide mass vaccinations or antibiotics in the event of a public health emergency.

CDC and HRSA also develop program guidance for recipients that describes activities necessary to improve preparedness and sets out requirements for measuring recipients' performance.

#### **CDC's Preparedness Program**

CDC distributes funds under its cooperative agreements on an annual basis. Each recipient

- must apply annually for these funds;
- receives a base amount, plus an amount based on its proportional share of the national population; and
- has flexibility in how to distribute the funds to local public health agencies based on the workplan submitted to CDC with the recipient's application.

Each recipient must submit reports that track progress in improving its ability to respond to bioterrorism and other public health emergencies. These have included quarterly, midyear, and annual reports.

**HRSA's Preparedness Program**

HRSA distributes funds under its cooperative agreements on an annual basis. Each recipient

- receives a base amount, plus an amount based on its proportional share of the national population; and
- must allocate at least 75 percent of its funds to hospitals or other health care entities.
  - Recipients distribute most of the funds to hospitals, with a small portion going to other entities such as community health centers, emergency medical services, and poison control centers.
  - Recipients may use the remaining funds to support their administrative costs and needs assessments.

Each recipient must submit midyear and annual reports that track progress in improving its ability to respond to bioterrorism and other public health emergencies.

**Prior Reviews of CDC's and HRSA's Preparedness Programs**

Several government and private studies, including those conducted by GAO, HHS's OIG, and Rand, have noted weaknesses in CDC's and HRSA's preparedness programs.

- In February 2004, we reported ([GAO-04-360R](#)) that although the states' progress fell short of 2002 goals and much remained to be accomplished, these programs enabled states to make needed improvements in public health and health care capabilities critical for preparedness.
- Since December 2002, HHS's OIG has issued seven evaluation and inspection reports on program results. It found that all of the studied recipients had prepared bioterrorism responses and were working to strengthen their infrastructure, but barriers to preparedness remained, including problems with staffing, funding, and communication and the need for standards and guidance.
- Since 2001, Rand has conducted many studies related to preparedness for public health emergencies. Rand studied how public health preparedness is transforming public health agencies and found
  - the preparedness mission has raised challenges in terms of accountability among local health jurisdictions;
  - it is difficult to assess preparedness because measures to define and assess preparedness, and a strong evidence base to support those measures are lacking; and
  - it is difficult to measure preparedness because it involves measuring the capacity to deal with situations that rarely happen.

Under a contract with HHS, Rand currently is convening expert panels and performing literature searches to help define preparedness.



## Presidential Directive 8—National Preparedness

Homeland Security Presidential Directive 8 provides some guidance on implementing the National Strategy for Homeland Security. Consistent with the directive, DHS developed the Interim National Preparedness Goal and the draft Target Capabilities List and issued them in 2005.<sup>7</sup>

- The Interim National Preparedness Goal establishes preparedness priorities, targets, and standards for preparedness assessments and strategies to align efforts of federal, state, local, tribal, private-sector, and nongovernmental entities.
- The draft Target Capabilities List identifies 37 capabilities that federal, state, local, tribal, private-sector, and nongovernmental entities need in order to prevent, protect against, respond to, and recover from a major event to minimize the impact on lives, property, and the economy.

CDC's and HRSA's preparedness programs provide both funds and guidance to state and local entities and hospitals to help them develop these capabilities and meet these preparedness priorities.

### Performance Measurement Systems

Early in a program, performance measurement systems can focus on measuring capacity, such as equipment and supplies purchased and personnel hired.

As programs mature and more data and scientific evidence are available, performance measurement systems can focus more on measuring capabilities, such as whether personnel are trained and can appropriately use equipment and supplies. Measurements can include

- type or level of program activities conducted (process),
- direct products and services delivered (outputs), or
- results of those products and services (outcomes).

### **Finding 1: CDC and HRSA Performance Measures Evolved from Measuring Capacity to Assessing Capability (slides 18 through 29)**

In 2002, CDC's and HRSA's efforts focused on measuring capacity, such as the type of staff hired and equipment needed to respond to a bioterrorism attack. To do this, CDC and HRSA identified markers or values against which recipients were expected to measure their performance. These initial markers or values, which they called benchmarks, were developed from emergency preparedness activities authorized in the Preparedness and Response Act.

From 2003 to 2006, CDC and HRSA changed their approach from using benchmarks that measure capacity to using performance measures that focus on whether a program has met standards assessing capabilities.

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<sup>7</sup>Homeland Security Presidential Directives record and communicate presidential decisions about homeland security policies of the United States.

In 2004, CDC and HRSA increased their coordination and in 2005 began to coordinate with DHS to align their preparedness programs with the Interim National Preparedness Goal and draft Target Capabilities List.

### **2002—CDC’s Initial Measurements Based on Legislation**

In 2002, CDC initially established its performance measurement systems using benchmarks based on emergency preparedness activities authorized in the Preparedness and Response Act.

CDC officials said these initial benchmarks measured program capacity-building efforts such as purchasing equipment and supplies and acquiring personnel.<sup>8</sup>

CDC established 14 critical benchmarks, such as requiring each recipient to designate an executive director of the bioterrorism and response program, establish a bioterrorism advisory committee, and develop a statewide response plan.

### **2003 to 2005—CDC’s Transition from Measuring Capacity to Assessing Capability**

From 2003 to 2005, CDC began to include the participation and input of stakeholders—other federal agencies, recipients of program funds, public health professional association officials, and industry experts—as it further developed its performance measurements. This input resulted in modifications of the benchmarks and the transition from benchmarks to performance measures that address capabilities.

- In 2003, an initial draft of over 100 proposed measures was developed from input by CDC internal subject matter experts. An external workgroup, including professional association representatives, reviewed and assessed the proposed measures. Some of the measures focused on new areas, such as exercising, drilling, and training.
- In 2004, CDC convened a second CDC internal expert panel to conduct a literature search to identify evidence-based criteria to support the performance measures. The panel consolidated the over 100 performance measures into 47 interim performance measures. Subsequent field-testing eliminated one proposed measure.
- In late 2004, CDC held teleconferences with selected recipients and professional association representatives to discuss these interim performance measures. This process reduced the number of performance measures to 34.
- In 2005, CDC introduced the 34 performance measures in the 2005 cooperative agreement guidance and field tested the new measures in five locations.

Example of the transition of a CDC benchmark into a performance measure that addresses capabilities:

- 2002 benchmark: Recipients were required to develop a system to receive and evaluate urgent disease reports on a 24-hour-per-day, 7-day-per-week basis.

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<sup>8</sup>According to CDC officials, acquisition of personnel was necessary in order to develop and implement emergency preparedness activities authorized by the Preparedness and Response Act.

- 2003/2004 benchmark: Recipients were required to complete development of and maintain a system to receive and evaluate urgent disease reports.
- 2005 performance measure: Recipients were required to meet a target time of 15 minutes for a knowledgeable public health professional to respond to a call or a communication that appears to be of urgent public health consequence.

### **2005 to 2006—CDC’s Refinement of Capability Assessment**

In late 2005, CDC met with representatives from professional organizations and state and local public health laboratories and health departments to review and refine the performance measures.

In 2006, CDC held further meetings with seven recipients and other stakeholders to discuss data collection efforts for performance measures and found that gathering some of the data would not be feasible. As a result, CDC further reduced the number of performance measures from 34 to 23.

CDC’s 2006 guidance with the 23 performance measures was issued in June 2006. Recipients were expected to comply with this guidance when implementing their 2006 programs, during the period from August 31, 2006, to August 30, 2007.

### **2002—HRSA’s Initial Measurements Based on Legislation**

In 2002, HRSA initially established its performance measurement systems using benchmarks based on emergency preparedness activities authorized in the Preparedness and Response Act.

HRSA officials said these initial benchmarks measured program capacity-building efforts such as purchasing equipment and supplies and acquiring personnel.

HRSA established five critical benchmarks, such as requiring each recipient to designate a coordinator for bioterrorism planning, establish a hospital preparedness committee, and develop a plan for hospitals to respond to a potential epidemic.

### **2003 to 2005—HRSA’s Benchmarks Modified and Expanded**

From 2003 to 2005, HRSA, like CDC, began to include the participation and input of stakeholders—federal agencies, cooperative agreement recipients, public health professional association officials, and industry experts—as it further developed its performance measurements. This input resulted in modifications of the benchmarks.

- In 2003, HRSA added new benchmarks based on the existing legislation and meetings and discussions with stakeholders. The benchmarks focused on such things as exercising, drilling, and training.
- In 2004, each of HRSA’s benchmarks was divided into HRSA-identified “sentinel indicators,” which are smaller component tasks that are intended to accomplish the larger benchmark activity. For example, for the benchmark “Surge Capacity: Beds,” one of the sentinel indicators is the number of additional hospital beds for which a recipient could make patient care available within 24 hours.

- In 2005, HRSA increased the number of sentinel indicators from 21 to 72 at HHS's request. For example, HHS asked for additional measures to identify bed capacity for trauma and burn victims.

### **2006—HRSA's Transition from Measuring Capacity to Assessing Capability**

In early 2006, HRSA convened an expert panel that proposed a set of performance measures, which were then disseminated to stakeholders such as recipients, professional associations, industry experts, and federal agencies for feedback.

This input resulted in adoption of 6 performance measures and 17 program measures (HRSA defined program measures as a mixture of program activities and process and outcome measures) that focus on capabilities.

HRSA also maintained reporting requirements for 17 of its 72 sentinel indicators.

HRSA's 2006 performance and program measures and sentinel indicators were not issued with its guidance in July 2006 because HRSA officials were awaiting final approval by HHS. These measures were issued in December 2006. However, according to HRSA officials, recipients were aware of the expectations contained in the guidance because they helped develop them. As such, it was HRSA's expectation that recipients would comply with them when implementing their 2006 programs, during the period from September 1, 2006, to August 31, 2007.

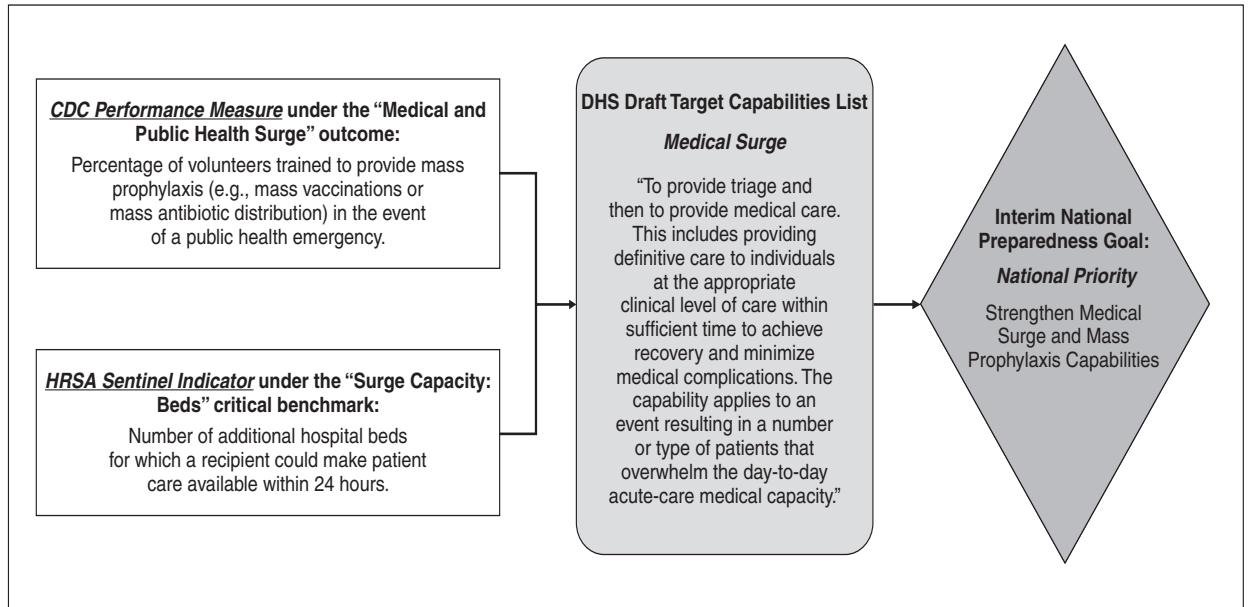
### **Increased Coordination between CDC and HRSA; Coordination Initiated with DHS**

In 2004, CDC and HRSA increased their coordination and in 2005 began to coordinate with DHS to align their preparedness programs with the Interim National Preparedness Goal and draft Target Capabilities List. For example,

- CDC and HRSA project officers shared information in monthly conference calls.
- CDC subject matter experts assisted HRSA's recipients.
- CDC, HRSA, and DHS created a Joint Advisory Committee in 2005 to create common terminology for their respective programs and improve commonality in their guidance.
- CDC and HRSA officials stated that in 2005 they had more closely aligned their performance measurements with the draft Target Capabilities List and the Interim National Preparedness Goal.

Figure 1 provides an example of how CDC and HRSA have aligned their performance measurements with DHS's draft Target Capabilities List and the Interim National Preparedness Goal.

**Figure 1: Alignment of CDC and HRSA Performance Measures with DHS’s Draft Target Capabilities List and the Interim National Preparedness Goal**



Source: CDC, HRSA, and DHS documents.

**CDC’s and HRSA’s Challenges**

According to CDC and HRSA officials, they will continue to face challenges as their performance measures evolve, because gaining consensus among the various stakeholders—federal agencies, state and local governments, and professional associations—is difficult. These difficulties arise because

- minimal scientific data exist in this new area of public health and hospital emergency preparedness to guide performance measurement systems; and
- scientists, subject matter experts, and program officials can disagree as to what could and should be measured.

**Finding 2: CDC and HRSA Use Data from Recipients’ Reports and Site Visits to Measure Progress (slides 30 through 36)**

CDC and HRSA project officers use performance measurement data from recipients’ required reports, along with site visits, to monitor progress and provide feedback about whether individual recipients meet goals and accomplish activities related to their ability to respond to bioterrorism events and other public health emergencies.

Both CDC and HRSA are making improvements to address the need for formal data analysis programs based on validated data and standardized procedures.

**Report and Site Visit Data**

CDC and HRSA project officers are responsible for monitoring individual recipients' progress, providing technical assistance, and giving feedback on their emergency preparedness activities. Experts in areas such as epidemiology, laboratory testing, and surveillance assist project officers in providing technical assistance.

- Project officers analyze and monitor individual recipients' progress from the information gathered through recipients' progress reports, phone calls, and e-mails and by conducting site visits.
- Project officers use the information and their analyses of it to (1) provide recipients with technical assistance and feedback on their ability to respond to bioterrorism and other public health emergencies, (2) determine issues to discuss during future site visits, and (3) assist recipients in developing future cooperative agreement applications.
- Project officers also collaborate with recipients to identify their specific needs for improving their emergency preparedness. For example, prior to site visits CDC project officers ask recipients what type of technical assistance they need and then include appropriate subject matter experts on the site visit.

**Providing Feedback**

Both CDC and HRSA have various methods for providing feedback on progress to recipients:

- Project officers determine the type and amount of feedback to provide each recipient on their progress.
- CDC and HRSA periodically provide recipients with information about promising practices and lessons learned on improving their ability to respond to bioterrorism and other public health emergencies.
- CDC and HRSA both hold annual conferences with all recipients to provide training, and other information such as changes to program guidance.

**Standard Analysis and Reports Currently Lacking**

CDC and HRSA officials told us that project officers lack standard protocols, checklists, or procedures for analyzing recipients' reports that include both qualitative and quantitative data. Consequently, each project officer develops his or her own methods or procedures for analyzing and measuring recipients' progress.

CDC and HRSA project officers have not generated standardized reports summarizing individual or collective recipients' progress and activities.

**Ongoing Improvements**

However, both CDC and HRSA are making improvements in measuring progress:

- In mid to late 2006, both CDC and HRSA began developing formal data analysis programs. They plan to generate standardized reports for management and other stakeholders as needed.
- CDC and HRSA plan to put procedures in place to validate the accuracy, reasonableness, and completeness of selected data that recipients self-report.
- Officials said validation is needed to
  - ensure that reports based on recipients' data provide accurate information;
  - determine whether all recipients are comparably reporting the status of their preparedness; and
  - allow managers to make informed decisions to improve the individual recipients' cooperative agreements and, ultimately, the nation's preparedness.

Once the data validation projects are completed, CDC officials plan to develop routine reports with specific recipient information and reports that provide national summaries. CDC officials plan to finish the validation projects by August 2007. CDC officials said that in the interim they would continue to use many of the measurements from 2005 and 2006 to trace recipients' progress.

HRSA's time frame to finish validation is tentative due to the hospital preparedness program's expected move to another office within HHS in 2007.

As programs mature and more data become available, performance measures will continue to evolve to better measure outcomes. Because the process is iterative, the system allows for continuous improvements.

### **Plans for Making Preparedness Information Public**

CDC plans to issue a report by the end of 2007 providing a "snapshot" of the progress recipients have made in building emergency readiness capacity and addressing how CDC will measure capability in the future.

HRSA officials said that decisions about whether to issue a report in 2007 on recipients' progress had not been made due to the hospital preparedness program's expected move to another office within HHS.

Beginning in 2009, and every 4 years thereafter, the Pandemic and All-Hazards Preparedness Act requires that HHS report to the Congress on the status of public health emergency preparedness and response.

- This includes a National Health Security Strategy and an implementation plan that includes an evaluation of progress made toward preparedness based on evidence-based benchmarks and objective standards that measure levels of preparedness.
- The Act is generally silent on the type of information that is to be included in this evaluation other than an aggregate and recipient-specific breakdown of funding.

### Scope and Methodology

To determine how the Centers for Disease Control and Prevention's (CDC) and Health Resources and Services Administration's (HRSA) performance measurement systems have evolved, we reviewed and analyzed federal government documents related to national security and emergency preparedness, including the Executive Office of the President's National Strategy for Homeland Security and several Homeland Security Presidential Directives, and the Department of Homeland Security's (DHS) National Response Plan, Interim National Preparedness Goal, and draft Target Capabilities List. We interviewed officials from CDC and HRSA to identify and document how they have developed and implemented performance management systems for their cooperative agreement programs, including determining how standards were identified, indicators were selected, goals and targets were established, measures were defined, data systems were developed, and data were collected from recipients. We obtained and analyzed CDC and HRSA documents to identify the development of performance measures from program inception to the present, recipient reporting requirements, and systems for collecting data from cooperative agreement recipients. We also obtained reports and interviewed officials from federal agencies that had evaluated CDC's and HRSA's public health and hospital preparedness programs, including HHS's Office of Inspector General, HHS's Agency for Healthcare Research and Quality, and the Congressional Research Service. We also obtained reports and interviewed officials from professional associations involved in emergency preparedness and from policy research organizations that had published assessments or evaluations of public health and hospital preparedness programs. The professional associations included

- American Hospital Association,
- Association of Professionals in Infection Control,
- Association of Public Health Laboratories,
- Association of State and Territorial Health Officials,
- National Association of County and City Health Officials,
- National Association of Public Hospitals, and
- The Joint Commission (formerly Joint Commission on Accreditation of Healthcare Organizations).

The policy research organizations we contacted included

- Center for Studying Health System Changes,
- National Center for Disaster Preparedness at Columbia University,
- Public Health Foundation,
- Rand Corporation,
- The Century Foundation, and



- Trust for America's Health.

We did not evaluate the actual performance measures adopted by CDC or HRSA.

To determine how CDC and HRSA measure the progress of their preparedness programs, we interviewed CDC and HRSA officials to identify and document how they oversee and evaluate their cooperative agreement programs. To identify procedures used for reviewing recipient data and reporting results to applicable program managers, we obtained and analyzed documents and recipient-submitted progress reports from CDC and HRSA for program year 2004 and the first half of program year 2005 and interviewed CDC and HRSA project officers. Additionally, we analyzed documents to identify procedures in place for providing feedback and suggestions for program improvements to cooperative agreement recipients. We also reviewed documents and conducted interviews about the procedures used by project officers to provide recipients with feedback on their performance, share expertise on developing plans or conducting exercises, and disseminate "promising practices" information. We did not examine the accuracy or completeness of recipients' self-reported data in the progress reports submitted to CDC or HRSA. We conducted our work from June 2006 to March 2007 in accordance with generally accepted government auditing standards.

**Comments from Department of Health and Human Services**



**DEPARTMENT OF HEALTH & HUMAN SERVICES**

Office of the Assistant Secretary  
for Legislation

Washington, D.C. 20201

MAR 14 2007

Cynthia A. Bascetta  
Director, Health Care  
U.S. Government Accountability Office  
Washington, DC 20548

Dear Ms. Bascetta:

Enclosed are the Department's comments on the U.S. Government Accountability Office's (GAO) draft report entitled, "*Public Health and Hospital Emergency Preparedness Programs: Evolution of Performance Measurement Systems to Measure Progress*" (GAO-07-485R), before its publication.

The Department appreciates the opportunity to comment on this draft report before its publication.

Sincerely,

A handwritten signature in black ink, appearing to read "Vincent J. Ventimiglia, Jr.", written over a printed name and title.

Vincent J. Ventimiglia, Jr.  
Assistant Secretary for Legislation

**COMMENTS ON THE DEPARTMENT OF HEALTH AND HUMAN SERVICES ON  
THE GOVERNMENT ACCOUNTABILITY OFFICE DRAFT REPORT ENTITLED:  
“PUBLIC HEALTH AND HOSPITAL EMERGENCY PREPAREDNESS PROGRAMS:  
EVOLUTION OF PERFORMANCE MEASUREMENT SYSTEMS TO MEASURE  
PROGRESS (GAO 07-485R)**

**HHS Comments:**

On March 5, 2007, the Bioterrorism Hospital Preparedness Program (BHPP) transferred to the Office of the Assistant Secretary for Preparedness and Response. We maintained the existing staff assignments with the states to ensure continuity of support during the transition period and immediately afterward. We did, however, make some immediate and meaningful changes that we anticipate will greatly improve our ability to monitor performance at the individual awardee level and for the program overall. Most importantly, we have reassigned staff from the Office of the Assistant Secretary for Preparedness and Response to support the evaluation unit of the BHPP and reassigned former members of the evaluation unit staff to assignments that are a better fit for their skill set. This change will ensure that those individuals monitoring the performance of the awardees have the necessary analysis skills.

In addition to strengthening the Program’s evaluation unit, we have taken steps to establish partnerships with the Office of the Assistant Secretary for Evaluation and Policy here in the Department of Health and Human Services (HHS) and the Division of State and Local Readiness, Outcome Monitoring and Evaluation Branch, the evaluation unit at for the Public Health Emergency Program at CDC. Currently, these three units are working to develop the measurable, evidence-based benchmarks and objective standards for both programs as required by the Pandemic All-Hazards Preparedness Act (the Act). These benchmarks and standards will be vetted with our State and local stakeholders and finalized by the June 17, 2007 deadline specified in the Act. The establishment of these measures will allow us to monitor and track performance in a systematic and uniform manner during the upcoming BHPP project period, which includes Fiscal Years 2007-2011.

Finally, we are preparing to conduct an analysis of performance data for existing BHPP awardees for the initial project period—Fiscal Years 2002-2006. We will utilize a contract currently in place to review and analyze the data and other information to be submitted by awardees through August 31, 2007. While we do not anticipate gleaning consistent information from all awardees, we do expect to develop a more complete picture of levels of preparedness for all awardees. We welcome an opportunity to share the results of our analysis during the next several months.

**GAO Contact and Staff Acknowledgments**

**GAO Contact**

Cynthia A. Bascetta at (202) 512-7101 or [bascettac@gao.gov](mailto:bascettac@gao.gov)

**Acknowledgments**

In addition to the contact name above, Karen Doran, Assistant Director; La Sherri Bush; Jeffrey Mayhew; Roseanne Price; Lois Shoemaker; and Cherie' Starck.

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