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March 11, 2008

The Honorable Charles E. Schumer
Chairman, Joint Economic Committee

The Honorable Carolyn B. Maloney
Vice Chair, Joint Economic Committee

The Honorable Hillary Rodham Clinton
Chairman, Subcommittee on Superfund and Environmental Health
Committee on Environment and Public Works
United States Senate

The Honorable Vito J. Fossella
House of Representatives

The Honorable Jerrold Nadler
House of Representatives

Subject: *September 11: Fiscal Year 2008 Cost Estimation Process for World Trade Center Health Programs*

Following the World Trade Center (WTC) attack, federal funding was provided to government agencies and private organizations to establish programs for screening, monitoring,[1] or treating responders for illnesses and conditions related to the WTC disaster.[2,3] Within the Department of Health and Human Services (HHS), the Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) awards grants for and oversees the WTC health programs that provide services for responders to the WTC attack. Federal funds appropriated or awarded for the WTC health programs from October 2001 through November 2007 have totaled $261.1 million.[4] These

[1]In this report, "screening" refers to initial physical and mental health examinations of affected individuals. "Monitoring" refers to tracking the health of individuals over time, either through periodic surveys or through follow-up physical and mental health examinations.

[2]These programs are referred to in this report as the WTC health programs or as grantees.

[3]One of the WTC health programs, the WTC Health Registry, also includes people living or attending school in the area of the WTC or working or present in the vicinity on September 11, 2001.

[4]As of November 2007 some of these funds had not yet been awarded by NIOSH to the WTC health programs.

funds were provided for screening and monitoring services, outpatient and inpatient treatment, and program support.[5] NIOSH has awarded the bulk of the funding.[6]

For fiscal year 2007, NIOSH estimated that medical monitoring, treatment services, and associated program support services for WTC health programs could range in cost from about $230 million to $283 million. However, in July 2007 we reported that NIOSH did not have a reliable cost estimation process.[7] We found that NIOSH and its grantees had included potential costs for certain program changes that might not be implemented and, in the absence of actual treatment cost data, had relied on questionable assumptions. We noted that HHS officials had required the two largest grantees—New York City Fire Department's WTC Medical Monitoring and Treatment Program (FDNY) and the New York/New Jersey (NY/NJ) WTC Consortium[8]—to report detailed cost data to improve future cost estimates. In fall 2007 the NIOSH director briefed congressional staff on the cost estimate for the WTC health programs for fiscal year 2008 and on changes NIOSH made to its cost estimation process for that year.

In light of our findings on NIOSH's cost estimation process for fiscal year 2007 and of the development of a cost estimate for fiscal year 2008, you asked us to identify the changes that NIOSH made for fiscal year 2008 and to determine whether these changes represent an improvement. To conduct this work, we interviewed the NIOSH officials who worked with WTC health program officials to develop the cost estimates for fiscal years 2007 and 2008. We also obtained and reviewed the quarterly cost and workload reports that the FDNY and NY/NJ WTC Consortium clinical centers prepared and that NIOSH used in developing the fiscal year 2008 cost estimate. We compared the methods NIOSH used to estimate costs for screening, monitoring, treatment, and program support for fiscal year 2008 to the methods used for fiscal year 2007. We conducted this performance audit from December 2007 through March 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. In February 2008 we held a briefing for your staffs on the results of our work. This report documents and expands on the information we provided in the briefing and transmits our findings to the Secretary of Health and Human Services.

[5]Program support includes a broad range of administrative, infrastructure support, and information management activities.

[6]HHS's Agency for Toxic Substances and Disease Registry awarded $29.5 million of the total federal funds.

[7]GAO, *September 11: HHS Needs to Ensure the Availability of Health Screening and Monitoring for All Responders*, GAO-07-892 (Washington, D.C.: July 23, 2007).

[8]The NY/NJ WTC Consortium consists of five clinical centers operated by (1) Mount Sinai School of Medicine's Mount Sinai-Irving J. Selikoff Center for Occupational and Environmental Medicine; (2) Long Island Occupational and Environmental Health Center at SUNY, Stony Brook; (3) New York University School of Medicine/Bellevue Hospital Center; (4) Center for the Biology of Natural Systems, at CUNY, Queens College; and (5) University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School, Environmental and Occupational Health Sciences Institute.

In summary, we found that, overall, the cost estimation process NIOSH used to estimate WTC health program costs for fiscal year 2008 represented an improvement over the process it used for fiscal year 2007. For the fiscal year 2008 estimate, NIOSH used actual average costs from the April 2007 through June 2007 quarter as the basis for estimating costs for screening and monitoring exams, instead of using assumptions as it had for fiscal year 2007. For fiscal year 2008, NIOSH also used actual average costs from the April 2007 through June 2007 quarter for estimating outpatient treatment costs—which represented almost two-thirds of the total cost estimate. This is an improvement over NIOSH's fiscal year 2007 methods, which relied on proxy data based on New York State workers' compensation reimbursement payments, as well as on questionable assumptions, to estimate outpatient treatment costs. For fiscal year 2008, while NIOSH again used assumptions to estimate the number of responders to be screened and monitored, these assumptions were better than those NIOSH used for fiscal year 2007 because they were based on data from actual screening and monitoring experience.

Agency Comments and Our Evaluation

We provided a draft of this report to HHS for comment. CDC's Office of the Director provided oral comments on behalf of the department. Overall, CDC agreed that the cost estimation process NIOSH used for fiscal year 2008 represented an improvement over the process NIOSH used for fiscal year 2007. CDC had concerns, however, with the information in the draft about the fiscal year 2008 cost estimate that NIOSH provided the Congress in a fall 2007 briefing. The draft indicated that, in its briefing, NIOSH stated that its cost estimate for the WTC health programs for fiscal year 2008 was $218.5 million. In its comments, CDC said that it had more recently determined that the WTC health programs' fiscal year 2008 costs would be in the range of $55 million to $80 million. CDC also said that all the other data in our report were correct. Because certain elements of the other data are subsets of the $218.5 million figure, we have not revised the report.

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We are sending copies of this report to the Secretary of the Health and Human Services and appropriate congressional committees. We will also provide copies to others upon request. In addition, the report is available at no charge on GAO's Web site at http://www.gao.gov.

If you and your staff have any questions or need additional information, please contact Cynthia Bascetta at (202) 512-7114 or bascettac@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. Major contributors to this report were Helene F. Toiv, Assistant Director; Frederick Caison; Anne Hopewell; and Roseanne Price.

Cynthia A. Bascetta
Director, Health Care

Enclosure-1


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World Trade Center
Health Programs
Cost Estimate for Fiscal Year 2008
Briefing for the staffs of
Senator Charles E. Schumer
Chairman, Joint Economic Committee
Representative Carolyn B. Maloney
Vice Chair, Joint Economic Committee
Senator Hillary Rodham Clinton
Chairman, Subcommittee on Superfund and Environmental Health,
Senate Committee on Environment and Public Works
Representative Vito J. Fossella
Representative Jerrold Nadler

Introduction

- The National Institute for Occupational Safety and Health (NIOSH) awards grants for and oversees programs providing health screening, monitoring, or treatment services for responders to the 2001 World Trade Center (WTC) attack. NIOSH is a unit of the Centers for Disease Control and Prevention (CDC), which is an agency of the Department of Health and Human Services (HHS).

- Federal funds for the WTC health programs from October 2001 through November 2007 have totaled $261.1 million. These funds were provided for screening and monitoring services, outpatient and inpatient treatment, and program support.* NIOSH has made the bulk of the funding awards to the WTC health programs.**

*Program support includes a broad range of administrative, infrastructure support, and information management activities.

**HHS's Agency for Toxic Substances and Disease Registry awarded $29.5 million of the total federal funds.

Introduction (cont.)

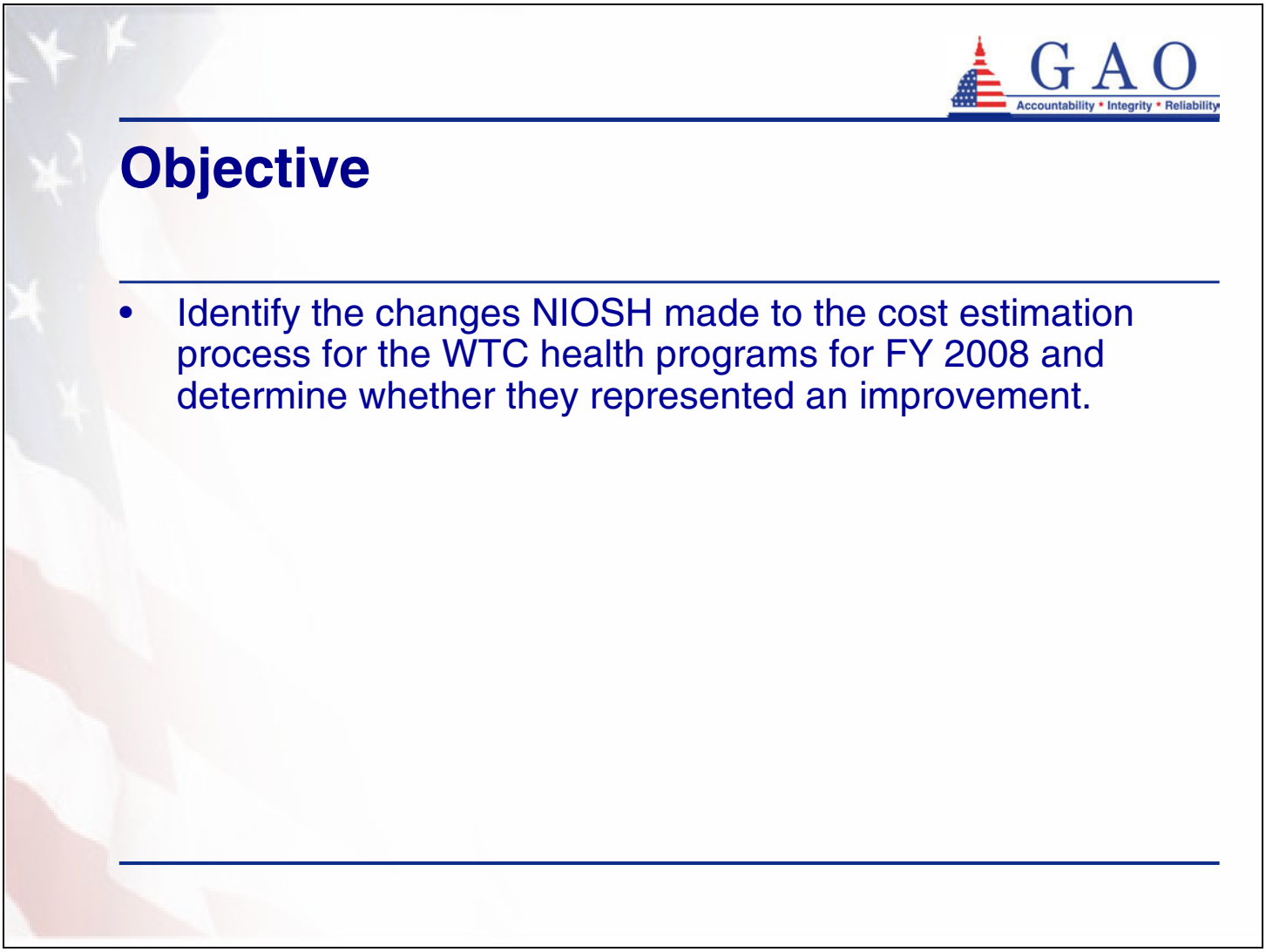
WTC Health Programs	
FDNY WTC Medical Monitoring and Treatment Program	FDNY Bureau of Health Services provides physical and mental health services at seven treatment facilities in the NYC metropolitan area; 16,000 NYC firefighters and emergency medical technicians enrolled.*
NY/NJ WTC Consortium	Five clinical centers provide physical and mental health services, with 30,000 responders enrolled; one of the clinical centers—the Mount Sinai School of Medicine—also coordinates services for nonfederal responders who reside outside the NYC area, with 1,400 enrolled.*
WTC Federal Responder Screening Program	Initial screening exams for federal responders; 1,600 responders enrolled.*
WTC Health Registry	Long-term monitoring through periodic surveys; over 71,000 responders, residents, and others had enrolled by November 2004.
Project COPE	Mental health services for NYPD employees and family members.
POPPA Program	Police Organization Providing Peer Assistance (POPPA) program provides peer-based and professional mental health services for NYPD uniformed employees.

*Enrollment data as of July 31, 2007.

Introduction (cont.)

- In July 2007 we reported that NIOSH did not have a reliable cost estimate for serving responders in fiscal year (FY) 2007.*
- On November 2, 2007, the NIOSH Director briefed congressional staff on the FY 2008 cost estimate for the WTC health programs and on changes NIOSH made to its cost estimation process for FY 2008.
- In light of our July 2007 findings and NIOSH's having a new cost estimation process for FY 2008, we were asked to review the process used by NIOSH to estimate costs for the WTC health programs for FY 2008.

*GAO, *September 11: HHS Needs to Ensure the Availability of Health Screening and Monitoring for All Responders*, GAO-07-892 (Washington, D.C.: July 23, 2007).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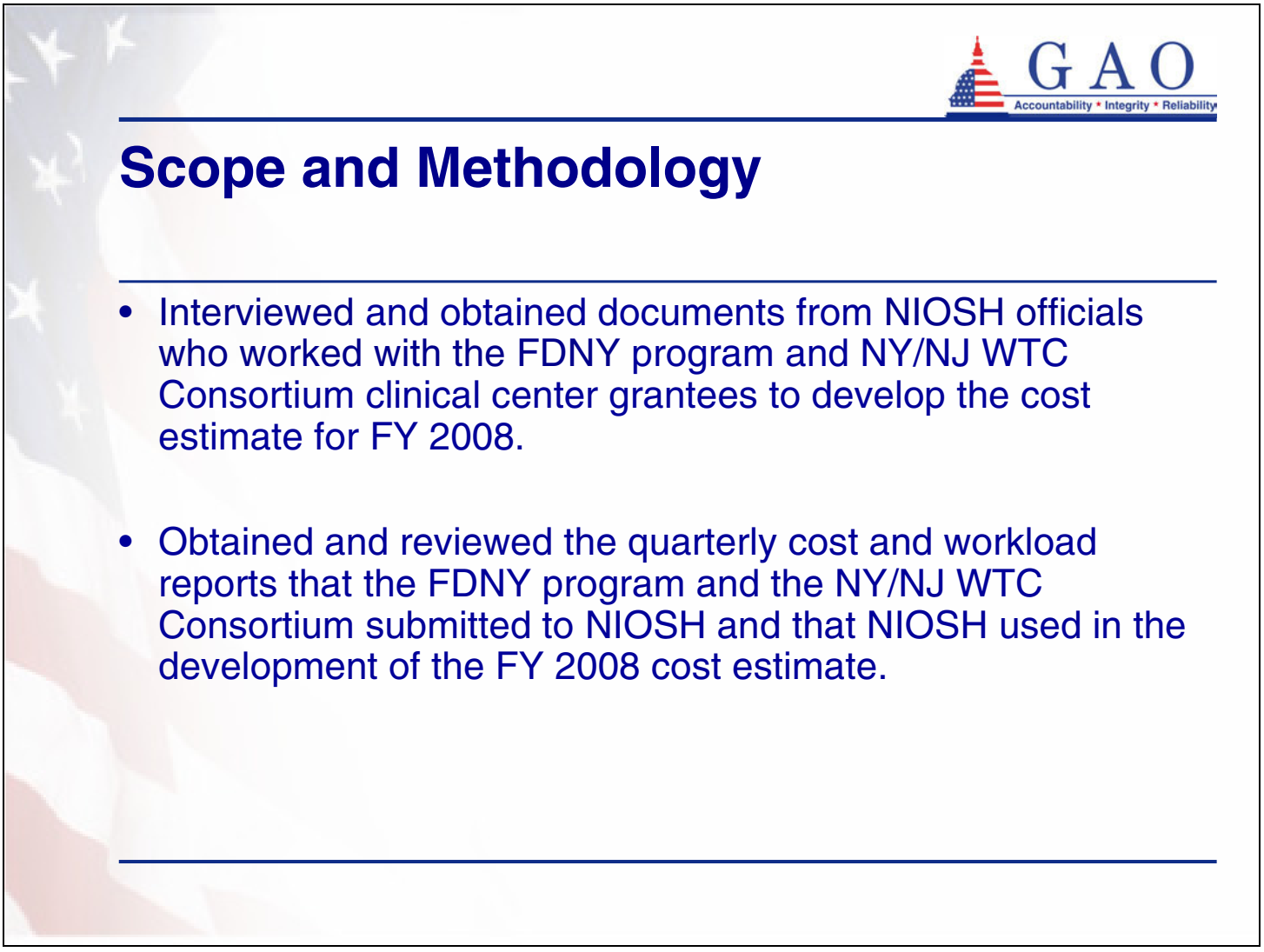
Objective
• Identify the changes NIOSH made to the cost estimation process for the WTC health programs for FY 2008 and determine whether they represented an improvement.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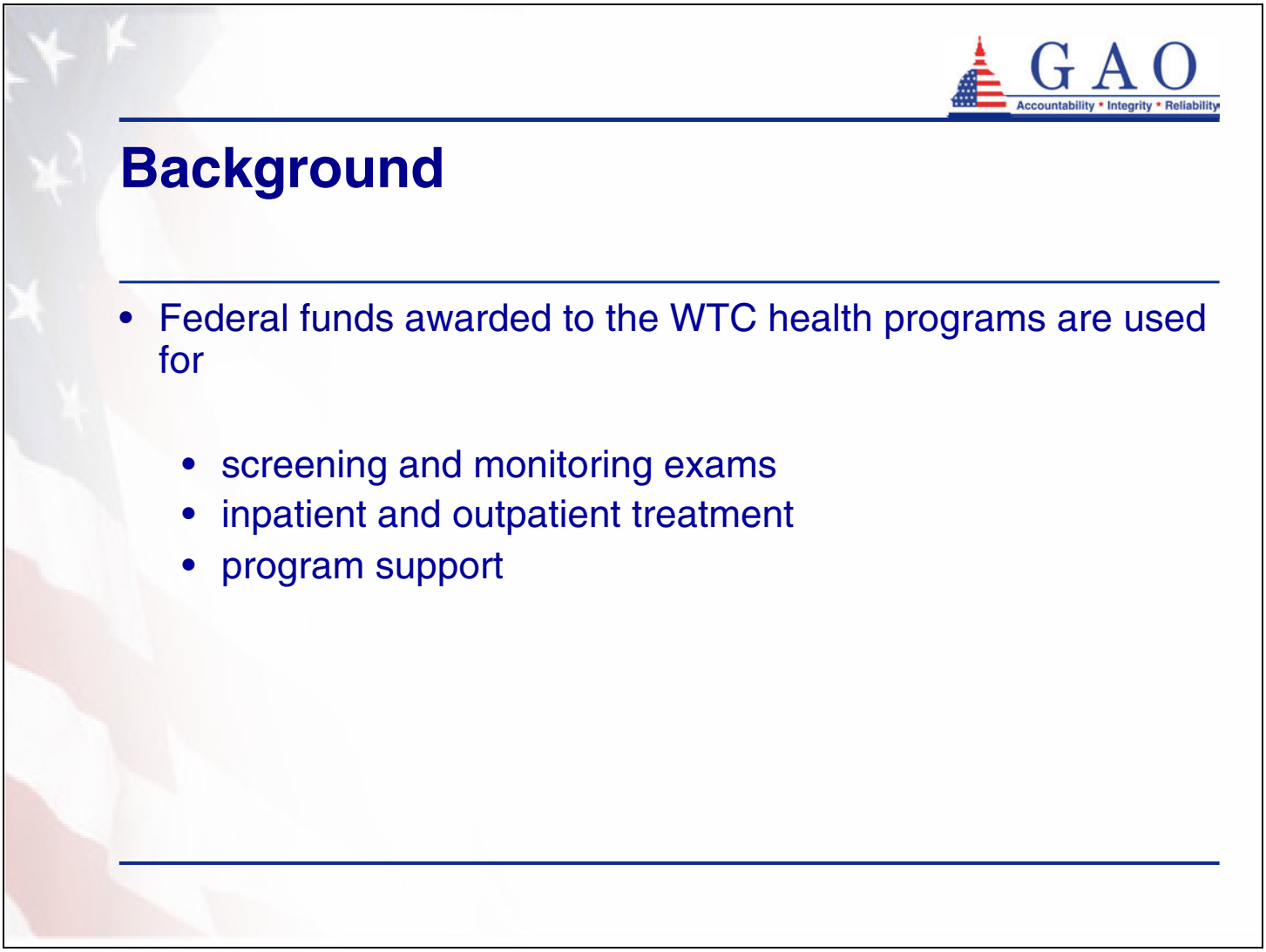
Scope and Methodology
• Interviewed and obtained documents from NIOSH officials who worked with the FDNY program and NY/NJ WTC Consortium clinical center grantees to develop the cost estimate for FY 2008.
• Obtained and reviewed the quarterly cost and workload reports that the FDNY program and the NY/NJ WTC Consortium submitted to NIOSH and that NIOSH used in the development of the FY 2008 cost estimate.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Background
• Federal funds awarded to the WTC health programs are used for
• screening and monitoring exams
• inpatient and outpatient treatment
• program support

Background (cont.)

- Some uncertainty is inherent in NIOSH's cost estimation process for the WTC health programs.
  - The number of responders who actually enroll can be difficult to predict because the total number of responders is unknown (estimates have ranged from 40,000 to over 91,000).
  - Treatment costs are difficult to estimate because the impact of exposure on responders' physical and mental health is unknown.

Background (cont.)

- NIOSH's cost estimate for the WTC health programs, FY 2008 (dollars in millions)

Total estimated costs for FY 2008	$218.5
Funds carried over from FY 2007*	116.1
Estimated funding needed for FY 2008	$102.4

- $116.1 million carried over from FY 2007 included funds awarded to grantees that were not spent and funds NIOSH had not yet awarded, including a $50 million emergency supplemental appropriation to CDC in May 2007.

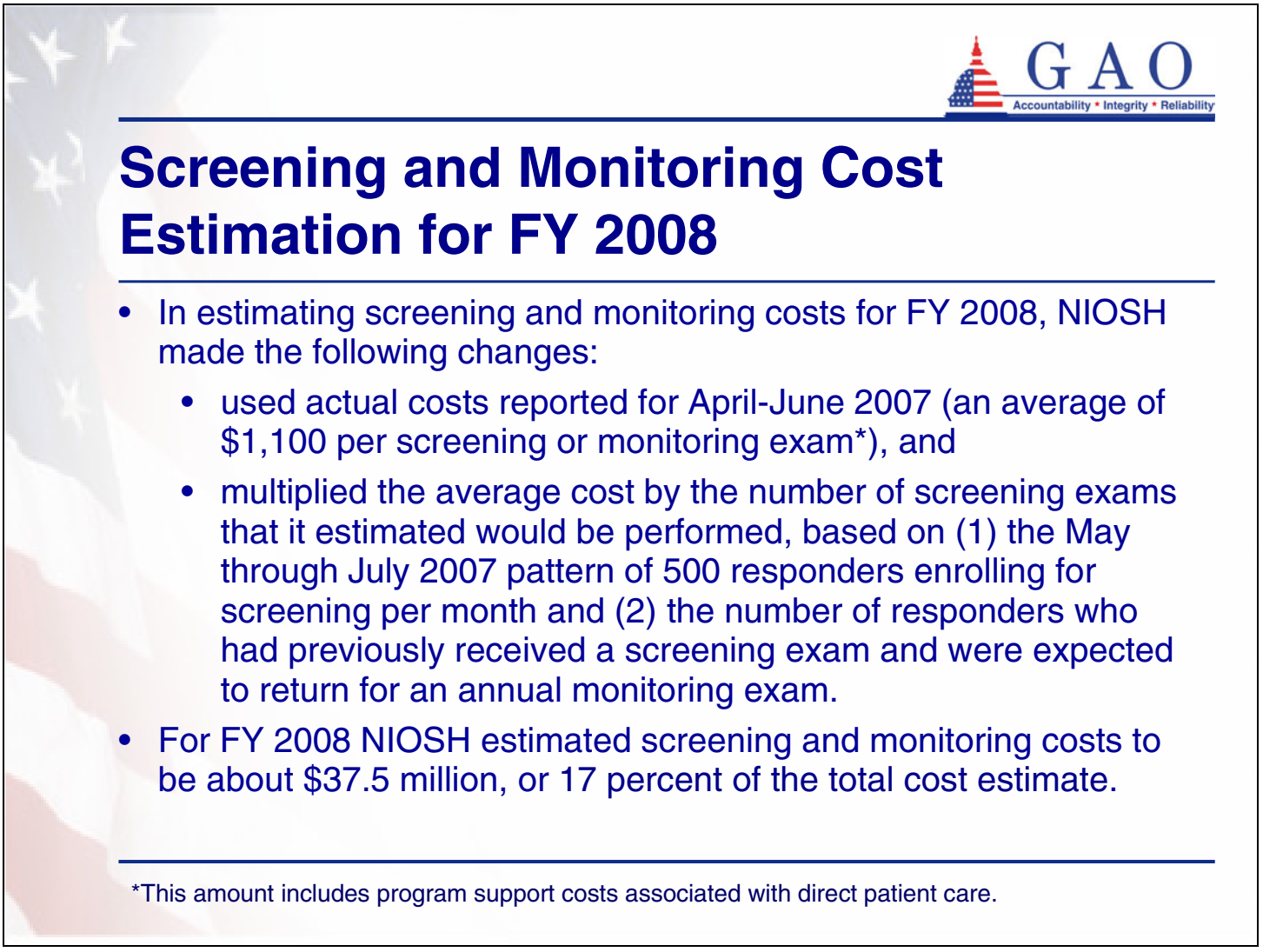
*As of October 1, 2007.

Summary of Findings

- For FY 2008, NIOSH changed its cost estimation process for screening and monitoring costs and outpatient treatment costs. These changes improved the overall process.
  - For FY 2008, NIOSH used actual average costs from the previous year as the basis for estimating costs for screening and monitoring exams, instead of using assumptions as it had for FY 2007.
  - For FY 2008, NIOSH used actual average costs from the previous year for estimating outpatient treatment costs—which represented almost two-thirds of the total cost estimate—instead of proxy data or questionable assumptions as it had for FY 2007.
  - For FY 2008, while NIOSH again used assumptions to estimate the number of responders to be screened and monitored, these assumptions were better than those NIOSH used for FY 2007 because they were based on data from actual experience.

Screening and Monitoring Cost Estimation for FY 2007

- In estimating screening and monitoring costs for FY 2007, NIOSH
  - assumed that the cost of monitoring exams would be $500 per exam for responders in treatment and $1,500 per exam for responders not in treatment;
  - assumed that every responder who had ever been screened (34,000) would be monitored in FY 2007 (10,486 received monitoring exams from July 2006 through June 2007); and
  - did not include screening exams in its estimate (5,489 responders received a screening exam from July 2006 through June 2007).
- For FY 2007, NIOSH estimated screening and monitoring costs to be about $30.7 million.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Screening and Monitoring Cost Estimation for FY 2008
• In estimating screening and monitoring costs for FY 2008, NIOSH made the following changes:
• used actual costs reported for April-June 2007 (an average of $1,100 per screening or monitoring exam*), and
• multiplied the average cost by the number of screening exams that it estimated would be performed, based on (1) the May through July 2007 pattern of 500 responders enrolling for screening per month and (2) the number of responders who had previously received a screening exam and were expected to return for an annual monitoring exam.
• For FY 2008 NIOSH estimated screening and monitoring costs to be about $37.5 million, or 17 percent of the total cost estimate.
*This amount includes program support costs associated with direct patient care.

Screening and Monitoring Cost Estimation for FY 2008 (cont.)

- Considerations:
  - NIOSH used only the most recent quarter of actual data* on which to base its estimate of screening and monitoring costs for FY 2008; NIOSH officials said these data were the most accurate.
  - The estimated number of responders to be screened and monitored for FY 2008 was based on the number expected to enroll for screening and assumptions regarding the number of screened responders expected to return for exams.
  - NIOSH told us that in fall 2007, new enrollment had decreased from 500 responders per month to 250 to 300.
  - For both FY 2007 and FY 2008, NIOSH based its cost estimate on the medically recommended practice of scheduling monitoring exams every 12 months, instead of the 18-month interval specified in the WTC protocol.

*The term "actual data" refers to information regarding a specific activity, such as outpatient treatment provided, during a specific time period.

Outpatient Treatment Cost Estimation for FY 2007

- In estimating outpatient treatment costs for FY 2007, NIOSH
  - used proxy data based on New York State workers' compensation medical reimbursement payments, and
  - adjusted the data to reflect three different levels of treatment utilization (we reported in 2007 that there were no data to support the accuracy of the adjustments*).
- For FY 2007, NIOSH estimated outpatient treatment costs to be about $150.6 million.

*GAO, *September 11: HHS Needs to Ensure the Availability of Health Screening and Monitoring for All Responders,* GAO-07-892 (Washington, D.C.: July 23, 2007).

Outpatient Treatment Cost Estimation for FY 2008

- In estimating outpatient treatment costs for FY 2008, NIOSH made the following changes:
  - used actual average outpatient costs reported for April-June 2007 ($8,400*), and
  - in general, used actual data to project the number of responders expected to receive outpatient treatment (16,500).
- For FY 2008, NIOSH estimated outpatient treatment costs to be about $139 million, or 64 percent of the total cost estimate.

*This amount includes program support costs associated with direct patient care.

Outpatient Treatment Cost Estimation for FY 2008 (cont.)

- Considerations:
  - NIOSH used only the most recent quarter of actual data on which to base its estimate of outpatient treatment costs for FY 2008; NIOSH officials said these data were the most accurate.
  - NIOSH did not have actual data with which to estimate the number of responders expected to receive treatment in FY 2008 who reside outside the NYC area. Based on assumptions, NIOSH estimated this number to be 930.

Inpatient Treatment Cost Estimation for FY 2007 and FY 2008

- For both FY 2007 and FY 2008, NIOSH's estimates for inpatient treatment costs were based on assumptions about the potential for high-cost medical procedures such as lung transplants.
- For FY 2007, NIOSH estimated inpatient treatment costs to be about $7.5 million. NIOSH estimated that from October 2006 through mid-December 2007, about $250,000 was obligated for inpatient treatment; no lung transplants or other high-cost procedures were performed.
- For FY 2008, NIOSH estimated inpatient treatment costs to be $10 million, or 4.6 percent of the total cost estimate.

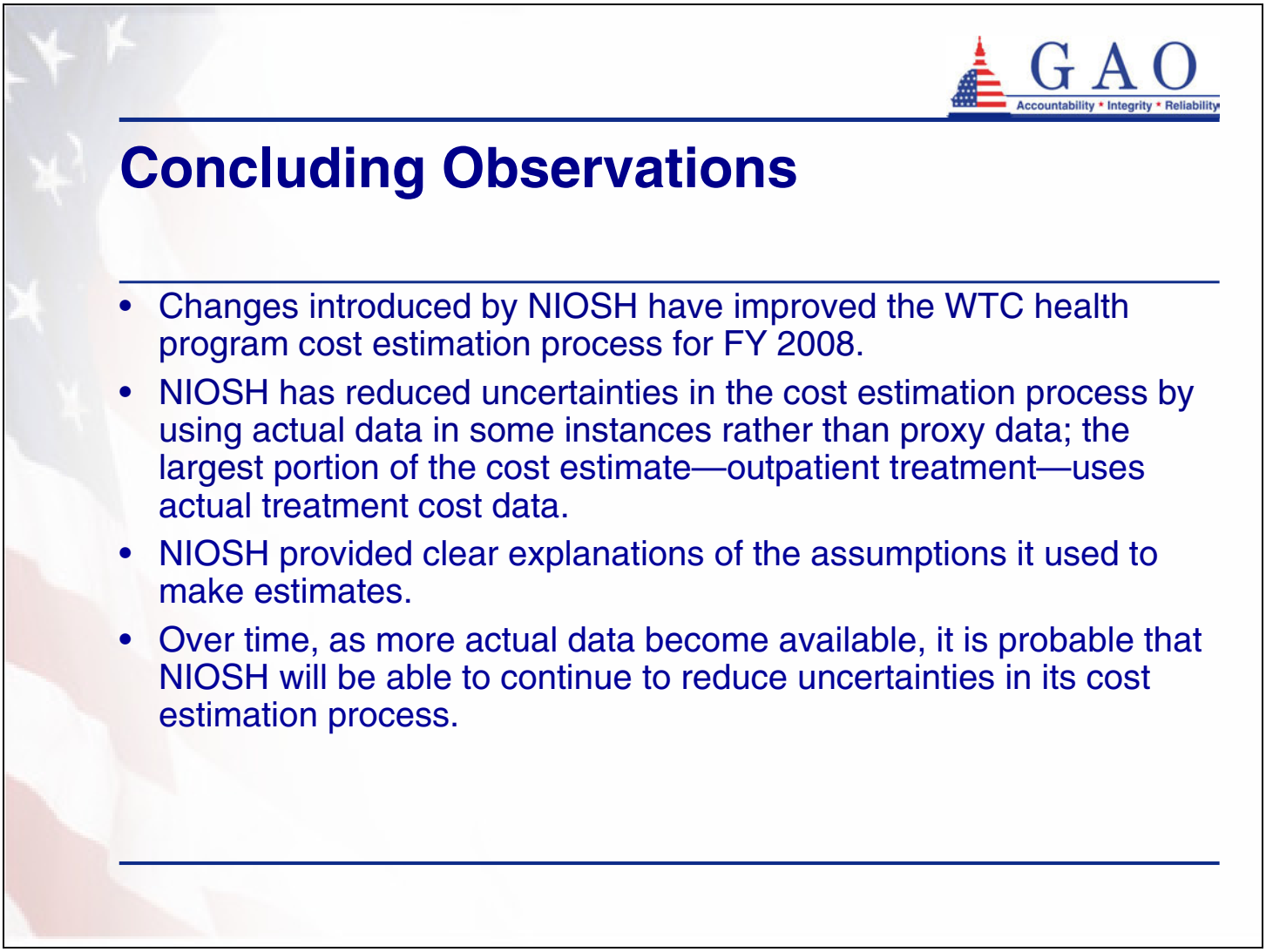
Inpatient Treatment Cost Estimation for FY 2007 and FY 2008 (cont.)

- Considerations:
  - According to NIOSH, one responder is currently on a waiting list for a lung transplant.

Program Support Cost Estimation for FY 2007 and FY 2008

- For FY 2007, NIOSH calculated program support costs as a percentage of total direct medical costs* plus federal administrative costs. It identified program support costs as a separate item.
- For FY 2007, NIOSH estimated program support costs to be about $73.7 million.
- For FY 2008, NIOSH changed the way it identified program support costs. It identified as a separate item the cost for certain functions, such as a new Business Process Center (to consolidate claims processing, negotiate pharmaceutical purchasing, coordinate services for responders residing outside NYC, and report data such as program costs, patient health status, and service utilization). However, NIOSH did not identify as a separate item the program support costs associated with direct medical costs; these costs were folded into the items on direct medical costs, such as outpatient treatment.
- For FY 2008, NIOSH estimated program support costs to be $32 million, or 14.7 percent of the total cost estimate; the $32 million does not include the program support costs associated with direct medical costs.

*Direct medical costs are those for screening, monitoring, and treatment.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Concluding Observations
• Changes introduced by NIOSH have improved the WTC health program cost estimation process for FY 2008.
• NIOSH has reduced uncertainties in the cost estimation process by using actual data in some instances rather than proxy data; the largest portion of the cost estimate—outpatient treatment—uses actual treatment cost data.
• NIOSH provided clear explanations of the assumptions it used to make estimates.
• Over time, as more actual data become available, it is probable that NIOSH will be able to continue to reduce uncertainties in its cost estimation process.

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