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HEALTH-CARE- ASSOCIATED INFECTIONS IN HOSPITALS

Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections

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Highlights of [GAO-08-673T](#), a testimony before the Committee on Oversight and Government Reform, House of Representatives

Why GAO Did This Study

According to the Centers for Disease Control and Prevention (CDC), health-care-associated infections (HAI)—infections that patients acquire while receiving treatment for other conditions—are estimated to be 1 of the top 10 causes of death in the nation. This statement summarizes a report issued in March and released today, *Health-Care-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections* ([GAO-08-283](#)). In this report, GAO examined (1) CDC's guidelines for hospitals to reduce or prevent HAIs and what HHS does to promote their implementation, (2) Centers for Medicare & Medicaid Services' (CMS) and hospital accrediting organizations' required standards for hospitals to reduce or prevent HAIs, and (3) HHS programs that collect data related to HAIs and integration of the data across HHS. To conduct the work, GAO reviewed documents and interviewed HHS agency and accrediting organization officials.

What GAO Recommends

In its report, GAO recommended that the Secretary of HHS identify priorities among the recommended practices in CDC's guidelines and establish greater consistency and compatibility of the data collected across HHS on HAIs. HHS generally agreed with GAO's recommendations. GAO also incorporated comments from the accrediting organizations as appropriate.

To view the full product, including the scope and methodology, click on [GAO-08-673T](#). For more information, contact Cynthia A. Bascetta at (202) 512-7114 or bascettac@gao.gov.

HEALTH-CARE-ASSOCIATED INFECTIONS IN HOSPITALS

Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections

What GAO Found

In its March report, which is summarized in this statement, GAO found the following:

- CDC has 13 guidelines for hospitals on infection control and prevention, which contain almost 1,200 recommended practices, but activities across HHS to promote implementation of these practices are not guided by a prioritization of the practices. Although most of the practices have been sorted into categories primarily on the basis of the strength of the scientific evidence for the practice, other factors to consider in prioritizing, such as costs or organizational obstacles, have not been taken into account.
- While CDC's guidelines describe specific clinical practices recommended to reduce HAIs, the infection control standards that CMS and the accrediting organizations require of hospitals describe the fundamental components of a hospital's infection control program. The standards are far fewer in number than CDC's recommended practices and generally do not require that hospitals implement all recommended practices in CDC's guidelines.
- Multiple HHS programs have databases that collect data on HAIs, but limitations in the scope of information collected and a lack of integration across the databases constrain the utility of the data.

GAO concluded that the lack of department-level prioritization of CDC's large number of recommended practices has hindered efforts to promote their implementation. GAO noted that a few of CDC's strongly recommended practices were required by CMS or the accrediting organizations but that it was not reasonable to expect CMS or the accrediting organizations to require additional practices without prioritization. GAO also concluded that HHS has not effectively used the HAI-related data it has collected through multiple databases across the department to provide a complete picture of the extent of the problem.

Mr. Chairman and Members of the Committee:

I am pleased to be here today to discuss our work on federal government efforts to address the problem of health-care-associated infections (HAI)¹ in hospitals and to provide a summary of our report, which you are releasing today, entitled *Health-Care-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections*.² According to the Centers for Disease Control and Prevention (CDC), HAIs are infections that patients acquire while receiving treatment for other conditions³ and are estimated to be 1 of the top 10 causes of death in the United States. For example, a patient may acquire an infection from bacteria on a device used to treat them, such as a needle or tube to deliver medicine, fluids, or blood. According to CDC, the most common HAIs are urinary tract infections, surgical site infections, pneumonia, and bloodstream infections.

HAIs can be expensive. In 2005 the average payment for a hospitalization in Pennsylvania was over six times higher for patients who contracted a hospital-acquired infection than for patients who did not acquire infections, according to a report by the Pennsylvania Health Care Cost Containment Council.⁴ A 2007 study of 1.69 million patients who were discharged from 77 hospitals found that the additional cost of treating a patient with an HAI averaged \$8,832.⁵ The costs of HAIs are borne not only by the patients who suffer infections, but also by those who pay for care, such as the Centers for Medicare & Medicaid Services (CMS). According to

¹See app. I for a list of abbreviations used in this statement.

²GAO, *Health-Care-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections*, [GAO-08-283](#) (Washington, D.C.: March 31, 2008).

³In general, HAIs are distinct from community-acquired infections, that is, infections that patients may have acquired before entering the hospital.

⁴See Pennsylvania Health Care Cost Containment Council, *Hospital-Acquired Infections in Pennsylvania* (Harrisburg, Pa.: November 2006).

⁵See D. Murphy et al., *Dispelling the Myths: The True Cost of Healthcare-Associated Infections* (Washington, D.C.: Association for Professionals in Infection Control and Epidemiology, February 2007).

the American Hospital Association, Medicare paid for over one-third of all hospital costs in 2005.⁶

Although not all HAIs are preventable, public and private organizations have established standards and other activities aimed at controlling and preventing them. CMS has established health and safety standards—known as conditions of participation (COP)—with which hospitals must comply in order to be eligible for payment by Medicare and Medicaid and which include the COP for infection control.⁷ Hospitals may choose one of two ways to show that they have met these or equivalent standards: they may be certified by a state agency under agreement with CMS to survey the hospital's compliance with the COPs or they may be accredited by one of two private organizations—the Joint Commission or the Healthcare Facilities Accreditation Program of the American Osteopathic Association (AOA).⁸ Most hospitals are accredited by the Joint Commission.⁹ Other activities within the Department of Health and Human Services (HHS) aimed at addressing the problem of HAIs in hospitals include the development of guidelines by CDC, which contain recommended practices that hospitals may adopt, and the management of several databases in different parts of HHS that contain information about HAIs in hospitals. According to the Institute of Medicine, prevention of HAIs through implementation of evidence-based guidelines can lead to improvements in quality of care.¹⁰ Furthermore, the collection of national data on these infections can provide a benchmark for individual hospitals to gauge their performance and design targeted interventions.

⁶Medicare is a federal health insurance program that serves over 42 million elderly and certain disabled beneficiaries and pays for health care needs, such as inpatient hospital stays and physician visits.

⁷See 42 C.F.R. § 482.1 (2007).

⁸Section 1865(b)(1) of the Social Security Act also provides that any other national accreditation body that meets certain requirements as determined by the Department of Health and Human Services may accredit hospitals.

⁹In calendar year 2007, about 81 percent of hospitals were accredited by the Joint Commission, state survey agencies certified approximately 16 percent of hospitals, and less than 2 percent were accredited by AOA. Less than 1 percent of hospitals were accredited by both the Joint Commission and AOA. The Joint Commission was formerly known as the Joint Commission on Accreditation of Healthcare Organizations or "JCAHO."

¹⁰See K. Adams et al., *Priority Areas for National Action: Transforming Health Care Quality*, Institute of Medicine of the National Academies (Washington, D.C.: The National Academies Press, 2003).

Federal and state lawmakers are also concerned about HAIs and have taken action to reduce them. With the passage of the Deficit Reduction Act of 2005 (DRA),¹¹ the Congress took steps to revise the way Medicare pays hospitals so that beginning on October 1, 2008, they would not receive higher payments for patients that acquire certain preventable conditions (including any of three HAIs) during their hospital stays.¹² The HAI-related preventable conditions that CMS identified in the final regulation implementing subsection 5001(c) of the DRA were urinary tract infections caused by catheters, infections caused by vascular catheters, and mediastinitis following coronary artery bypass graft surgery.¹³ According to Consumers Union—a nonprofit organization that has a campaign to stop HAIs—23 state legislatures have enacted laws that require public reporting of hospital HAI rates or HAI-related information.¹⁴

My statement today is based on the report that you are releasing today.¹⁵ In that report, we examined (1) CDC’s guidelines for hospitals to reduce or prevent HAIs, and what HHS does to promote their implementation; (2) CMS’s and the accrediting organizations’ required standards for hospitals to reduce or prevent HAIs, and how compliance is assessed; and

¹¹Pub. L. No. 109-171, § 5001(c), 120 Stat. 4, 30.

¹²Under Medicare, hospitals generally receive fixed payments for inpatient stays based on diagnosis-related groups (DRG), a system that classifies stays by patient diagnoses and procedures. Some DRGs take account of certain comorbidities or complications associated with a diagnosis or procedure and pay at a higher rate than would otherwise be paid for the diagnosis or procedure. In a final regulation implementing section 5001(c) of the DRA, CMS identified certain preventable conditions it would not consider as a comorbidity or complication that would lead to the higher payment. See 72 Fed. Reg. 47130, 47200-217 (Aug. 22, 2007). The DRA also requires hospitals to indicate the diagnoses that were present in patients at the time of admission in order for CMS to determine if a preventable condition developed during a patient’s hospital stay.

¹³Mediastinitis is inflammation of the area between the lungs (the heart, the large blood vessels, the trachea, the esophagus, the thymus gland, and connective tissues). Additional preventable conditions that will no longer result in higher payments to hospitals include hospital-acquired injuries, such as fractures, pressure ulcers, objects left in the body during surgery, air embolisms, and blood incompatibility. CMS plans to propose additional conditions in the fiscal year 2009 Hospital Inpatient Prospective Payment Systems proposed rule. See 72 Fed. Reg. 47130 (Aug. 22, 2007).

¹⁴See Consumers Union, “State Hospital Infection Disclosure Laws,” available at <http://www.consumersunion.org/campaigns/stophospitalinfections/learn.html>, accessed on March 10, 2008.

¹⁵[GAO-08-283](#).

(3) HHS programs that collect data related to HAIs in hospitals, and the extent to which the data are integrated across HHS.

In carrying out this work for the report you are releasing today, we interviewed officials from CDC, CMS, the Agency for Healthcare Research and Quality (AHRQ), the Food and Drug Administration, the Joint Commission, and AOA. We also interviewed selected experts in the field of infection control. In addition, we reviewed and analyzed CDC's infection control and prevention guidelines issued from 1981 through 2007; minutes of the Healthcare Infection Control Practices Advisory Committee; the World Health Organization's guideline on hand hygiene;¹⁶ CMS's COPs for hospitals and interpretive guidelines,¹⁷ which describe the COPs and provide survey procedures used to determine compliance with them; the Joint Commission's standards for hospitals and its hospital standards manual; and AOA's standards for hospitals and its hospital standards manual. We refer to the guidance that CMS provides about its COPs in the interpretive guidelines, and that the Joint Commission and AOA provide about their standards in their respective manuals, as "standards interpretations."¹⁸ We also reviewed manuals and other documents that explain the HHS programs that collect HAI-related data, and related publications and data analyses conducted by the agencies based on the data collected. We conducted the performance audit for the report you are releasing today from January 2007 to March 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate

¹⁶See World Health Organization, *WHO Guidelines on Hand Hygiene in Healthcare (Advanced Draft): Global Patient Safety Challenge 2005-2006: Clean Care Is Safer Care* (Geneva, Switzerland, 2006).

¹⁷In addition to reviewing CMS's interpretive guidelines that can be found in CMS's *State Operations Manual*, we reviewed CMS's revised interpretive guidelines for the infection control COP, which were published in November 2007. Throughout this report, where we refer to the interpretive guidelines for infection control we are referring to the November 2007 revision.

¹⁸Standards interpretations are given by CMS primarily in its *State Operations Manual*, which is arranged by COP (Appendix A of the *State Operations Manual* contains the COPs for hospitals); by the Joint Commission in its *Comprehensive Accreditation Manual for Hospitals: The Official Handbook*, which identifies rationales and performance expectations that are used to measure each standard and is organized into 11 chapters of safety and quality standards, such as "Medication Management" and "Leadership;" and by AOA's standards manual, *Accreditation Requirements for Healthcare Facilities*, which provides explanations for surveyors and the scoring procedures along with its standards and is organized into 32 chapters.

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. A detailed explanation of our methodology is included in our report.

In brief, we found that federal authorities and private organizations have undertaken a number of activities to address the problem of HAIs. CDC has 13 guidelines for hospitals on infection control and prevention, which contain almost 1,200 recommended practices. However, activities across HHS to promote implementation of these practices are not guided by a prioritization of the practices. Although most of the practices have been sorted into categories primarily on the basis of the strength of the scientific evidence for the practice, other factors to consider in prioritizing, such as costs or organizational obstacles, have not been taken into account. We concluded that a lack of department-level prioritization of CDC's large number of recommended practices has hindered efforts to promote their implementation. While CDC's guidelines describe specific clinical practices recommended to reduce HAIs, the infection control standards that CMS and the accrediting organizations require of hospitals describe the fundamental components of a hospital's infection control program. The standards are far fewer in number than CDC's recommended practices and generally do not require that hospitals implement all recommended practices in CDC's guidelines. We noted that a few of CDC's strongly recommended practices were required by CMS or the accrediting organizations but that it was not reasonable to expect CMS or the accrediting organizations to require additional practices without prioritization. Other federal efforts include multiple HHS programs that collect data on HAIs, but limitations in the scope of information collected and a lack of integration across the programs' databases constrain the utility of the data. We concluded that HHS has not effectively used the HAI-related data it has collected through multiple databases across the department to provide a complete picture about the extent of the problem.

In order to help reduce HAIs in hospitals, we recommended that the Secretary of HHS take the following two actions: (1) Identify priorities among CDC's recommended practices and determine how to promote implementation of the prioritized practices, including whether to incorporate selected practices into CMS's conditions of participation (COP) for hospitals. (2) Establish greater consistency and compatibility of the data collected across HHS on HAIs to increase information available about HAIs, including reliable national estimates of the major types of HAIs. In commenting on a draft of our report, HHS generally agreed with

our recommendations. It indicated that CMS would consider whether to incorporate some of CDC's recommended practices into CMS's hospital COPs, and it identified some steps CMS would take to achieve greater consistency and compatibility of the data collected on HAIs. In response to comments from the Joint Commission, we clarified our discussion of Joint Commission activities; in addition, we incorporated technical comments from the Joint Commission and AOA.

CDC Has 13 Infection Control and Prevention Guidelines Containing Almost 1,200 Recommended Practices, but Activities across HHS to Promote Implementation Are Not Guided by Prioritization of Practices

CDC has 13 guidelines for hospitals on infection control and prevention, and in these guidelines CDC recommends almost 1,200 practices for implementation to prevent HAIs and related adverse events. (See table 1.) The guidelines cover such topics as prevention of catheter-associated urinary tract infections, prevention of surgical site infections, and hand hygiene. An example of a recommended practice in the hand hygiene guideline is the recommendation that health care workers decontaminate their hands before having direct contact with patients. Most of the practices are sorted into five categories—from strongly recommended for implementation to not recommended—primarily on the basis of the strength of the scientific evidence for each practice. Over 500 practices are strongly recommended. CDC and AHRQ have conducted some activities to promote implementation of recommended practices, such as disseminating the guidelines and providing research funds. However, these steps have not been guided by a prioritization of recommended practices. One factor to consider in prioritization is strength of evidence, as CDC has done. In addition to strength of evidence, an AHRQ study identified other factors to consider in prioritizing recommended practices, such as costs or organizational obstacles. Furthermore, the efforts of the two agencies have not been coordinated. For example, we found that CDC and AHRQ independently examined various aspects of the evidence related to improving hand hygiene compliance, such as the selection of hand hygiene products and health care worker education. Although this could have been an opportunity for coordination, an official from the HHS Office of the Secretary told us that no one within the office is responsible for coordinating infection control activities across HHS.

Table 1: CDC’s Infection Control and Prevention Guidelines, with Number of Recommended Practices, Issued between 1981 and 2007

Guideline (issue date)		Total number of recommended practices
1	Guideline for Prevention of Catheter-associated Urinary Tract Infections (1981)	24
2	Guideline for Infection Control in Health Care Personnel (1998)	183
3	Guideline for Prevention of Surgical Site Infection (1999)	63
4	Guidelines for Preventing Opportunistic Infections among Hematopoietic Stem Cell Transplant Recipients (2000)	^a
5	Guidelines for the Prevention of Intravascular Catheter-Related Infections (2002)	111
6	Guideline for Hand Hygiene in Health-Care Settings (2002)	42
7	Recommendations for Using Smallpox Vaccine in a Pre-Event Vaccination Program (2003)	^b
8	Guidelines for Environmental Infection Control in Health-Care Facilities (2003)	329
9	Guidelines for Preventing Health-Care-Associated Pneumonia (2003)	208
10	Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health-Care Settings (2005)	^b
11	Influenza Vaccination of Health-Care Personnel (2006)	6
12	Management of Multidrug-Resistant Organisms in Healthcare Settings (2006)	80
13	Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings (2007)	152
Total		1,198

Source: GAO analysis of CDC guidelines.

^aFor the purpose of this table, we do not include a count of the recommended practices in this guideline because the guideline is targeted to a specific patient population that not all hospitals treat. However, for the hospitals that do treat such patients, this guideline provides at least another 164 recommended practices.

^bThe practices in these guidelines are not organized in a way that supports counting the total number of practices.

CMS's and Accrediting Organizations' Required Hospital Standards Describe Components of Infection Control Programs, and Compliance with These Standards Is Assessed through On-Site Surveys

While CDC's infection control guidelines describe specific clinical practices recommended to reduce HAIs, the infection control standards that CMS and the accrediting organizations require as part of the hospital certification and accreditation processes describe the fundamental components of a hospital's infection control program. These components include the active prevention, control, and investigation of infections. Examples of standards and corresponding standards interpretations that hospitals must follow include educating hospital personnel about infection control and having infection control policies in place. The standards are far fewer in number than the recommended practices in CDC's guidelines—for example, CMS's infection control COP contains two standards. Furthermore, CMS and the accrediting organizations generally do not require that hospitals implement all recommended practices in CDC's infection control and prevention guidelines. Only the Joint Commission and AOA have standards that require the implementation of certain practices recommended in CDC's infection control guidelines. For example, the Joint Commission and AOA require hospitals to annually offer influenza vaccinations to health care workers, whereas CMS's interpretive guidelines, or standards interpretations, are more general, stating that hospitals should adopt policies and procedures based as much as possible on national guidelines that address hospital-staff-related issues, such as evaluating hospital staff immunization status for designated infectious diseases. CMS, the Joint Commission, and AOA assess compliance with their infection control standards through direct observation of hospital activities and review of hospital policy documents during on-site surveys.

Multiple HHS Programs Collect Data on HAIs, but Lack of Integration of Available Data and Other Problems Limit Utility of the Data

Multiple HHS programs collect data on HAIs, but limitations in the scope of information they collect and the lack of integration across the databases maintained by these separate programs constrain the utility of the data. Three agencies within HHS—CDC, CMS, and AHRQ—currently collect HAI-related data for a variety of purposes in databases maintained by four separate programs: CDC's National Healthcare Safety Network (NHSN) program, CMS's Medicare Patient Safety Monitoring System (MPSMS), CMS's Annual Payment Update (APU) program, and AHRQ's Healthcare Cost and Utilization Project (HCUP). Each of these databases presents only a partial view of the extent of the HAI problem because each focuses its data collection on selected types of HAIs and collects data from a different subset of hospital patients across the country. (See table 2.) Although officials from the various HHS agencies discuss HAI data collection with each other, we did not find that the agencies were taking steps to integrate any of the existing data by creating linkages across the

databases, such as creating common patient identifiers. Creating linkages across the HAI-related databases could enhance the availability of information to better understand where and how HAIs occur. For example, data on surgical infection rates and data on surgical processes of care are collected for some of the same patients in two different databases that are not linked. As a consequence, the potential benefit of using the existing data to monitor the extent to which compliance with the recommended surgical care processes leads to actual improvements in surgical infection rates has not been realized. Although none of the databases collect data on the incidence of HAIs for a nationally representative sample of hospital patients, CDC officials have produced national estimates of HAIs. However, those estimates derive from assumptions and extrapolations that raise questions about the reliability of those estimates.

Table 2: Selected Characteristics of HHS Databases That Contain HAI-Related Information

Responsible agency and database	HAI-related data collected	Population for which data are collected
CDC's National Healthcare Safety Network (NHSN)	Infection types • central-line-associated BSI • catheter-associated UTI • VAP • postprocedure pneumonia • SSI • MDRO^a • other^b	Most hospitals report on patients in selected critical care units and those undergoing selected procedures such as coronary bypass surgery and colon surgery.
CMS's Medicare Patient Safety Monitoring System (MPSMS)	Infection types ^c • central-line-associated BSI • catheter-associated UTI • postoperative pneumonia • antibiotic-associated <i>C. difficile</i> • MRSA • VRE	National sample of hospitalized Medicare patients.
CMS's Annual Payment Update (APU) database	Practices to prevent or reduce SSIs • providing antibiotics within 1 hour of surgery • selecting appropriate antibiotics to prevent surgical infections • stopping the administration of the antibiotics within 24 hours of end of surgery	National inpatient population for selected surgical procedures. ^d
AHRQ's Healthcare Cost and Utilization Project (HCUP) database, Nationwide Inpatient Sample	Infection types • postoperative sepsis^e • "infection due to medical care" (focused on intravenous and catheter infections)	A sample of inpatients in hospitals in 37 states.

Source: GAO analysis of CDC, CMS, and AHRQ information.

Notes: BSI is bloodstream infection; *C. difficile* is *Clostridium difficile*; MDRO is multidrug-resistant organism; MRSA is methicillin-resistant *Staphylococcus aureus*; SSI is surgical site infection; UTI is urinary tract infection; VAP is ventilator-associated pneumonia; and VRE is vancomycin-resistant enterococci.

^aFor patients whose infections are laboratory-confirmed, NHSN collects data on the pathogens identified, and for specified pathogens (including those responsible for MRSA and VRE), the result of any testing of their resistance to specific antibiotics. Participating hospitals have the option to report separately the number of times in a given month that they tested specimens of any of eight specified organisms for resistance to selected antibiotics, as well as the results of those tests. From these data, NHSN produces rates of antimicrobial resistance relative to the number of nonduplicative specimens tested (i.e., excluding multiple tests for the same organism in the same patient). This part of NHSN does not distinguish between MDRO infections acquired in the hospital and community-acquired infections present at admission.

^bHospitals can choose to submit to NHSN data on other types of HAIs, such as skin and soft tissue infections, cardiovascular system infections, and gastrointestinal system infections. CDC does not provide data collection protocols for these types of infections, but they can be entered into NHSN as “custom events” using definitions provided separately by CDC.

^cIn 2007, CMS added catheter-associated UTIs, VAP, MRSA, and VRE to MPSMS and dropped insertion-site infections associated with central vascular catheters, BSIs, and postoperative-associated UTIs.

^dThe three practice measures are assessed for certain categories of surgeries: coronary artery bypass graft; other cardiac surgery; colon surgery; hip arthroplasty; knee arthroplasty; abdominal hysterectomy; vaginal hysterectomy; and vascular surgery.

^eThe rate of postoperative sepsis is computed only for patients undergoing elective surgeries.

Concluding Observations

HAIs in hospitals can cause needless suffering and death. Federal authorities and private organizations have undertaken a number of activities to address this serious problem; however, to date, these activities have not gained sufficient traction to be effective.

We identified two possible reasons for the lack of effective actions to control HAIs. First, although CDC’s guidelines are an important source for its recommended practices on how to reduce HAIs, the large number of recommended practices and lack of department-level prioritization have hindered efforts to promote their implementation. The guidelines we reviewed contain almost 1,200 recommended practices for hospitals, including over 500 that are strongly recommended—a large number for a hospital trying to implement them. A few of these are required by CMS’s or accrediting organizations’ standards or their standards interpretations, but it is not reasonable to expect CMS or accrediting organizations to require additional practices without prioritization. Although CDC has categorized the practices on the basis of the strength of the scientific evidence, there are other factors to consider in developing priorities. For example, work by AHRQ suggests factors such as costs or organizational obstacles that could be considered. The lack of coordinated prioritization may have resulted in duplication of effort by CDC and AHRQ in their reviews of scientific evidence on HAI-related practices.

Second, HHS has not effectively used the HAI-related data it has collected through multiple databases across the department to provide a complete picture of the extent of the problem. Limitations in the databases, such as nonrepresentative samples, hinder HHS’s ability to produce reliable national estimates on the frequency of different types of HAIs. In addition, currently collected data on HAIs are not being combined to maximize their utility. HHS has made efforts to use the currently collected data to understand the extent of the problem of HAIs, but the lack of linkages

across the various databases results in a lost opportunity to gain a better grasp of the problem of HAIs.

HHS has multiple methods to influence hospitals to take more aggressive action to control or prevent HAIs, including issuing guidelines with recommended practices, requiring hospitals to comply with certain standards, releasing data to expand information about the nature of the problem, and soon, using hospital payment methods to encourage the reduction of HAIs. Prioritization of CDC's many recommended practices can help guide their implementation, and better use of currently collected data on HAIs could help HHS—and hospitals themselves—monitor efforts to reduce HAIs. We concluded that leadership from the Secretary of HHS is currently lacking to do this. Without such leadership, the department is unlikely to be able to effectively leverage its various methods to have a significant effect on the suffering and death caused by HAIs.

Mr. Chairman, this completes my prepared remarks. I would be happy to respond to any questions you or other members of the committee may have at this time.

Contact and Acknowledgments

For further information about this statement, please contact Cynthia A. Bascetta at (202) 512-7114 or bascettac@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Key contributors to this statement were Linda T. Kohn, Assistant Director; Shaunessye Curry; Shannon Slawter Legeer; Eric Peterson; and Roseanne Price.

Appendix I: Abbreviations

AHRQ	Agency for Healthcare Research and Quality
AOA	Healthcare Facilities Accreditation Program of the American Osteopathic Association
APU	Annual Payment Update
BSI	bloodstream infection
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare & Medicaid Services
COP	condition of participation
DRA	Deficit Reduction Act of 2005
DRG	diagnosis-related group
FDA	Food and Drug Administration
HAI	health-care-associated infection
HCUP	Healthcare Cost and Utilization Project
HHS	Department of Health and Human Services
MDRO	multidrug-resistant organism
MPSMS	Medicare Patient Safety Monitoring System
MRSA	methicillin-resistant <i>Staphylococcus aureus</i>
NHSN	National Healthcare Safety Network
SSI	surgical site infection
UTI	urinary tract infection
VAP	ventilator-associated pneumonia
VRE	vancomycin-resistant enterococci

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