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The Society for Healthcare Epidemiology of America (SHEA)
Statement on Fiscal Year 2010 Funding for the U.S. Department of Health and Human
Services (HHS), the Centers for Disease Control and Prevention (CDC),
and the National Institutes of Health (NIH)

SHEA was founded in 1980 to advance the application of the science of healthcare epidemiology. SHEA works to achieve the highest quality of patient care and healthcare personnel safety in all healthcare settings by applying epidemiologic principles and prevention strategies to a wide range of quality-of-care issues. SHEA is a growing organization, strengthened by its membership in all branches of medicine, public health, and healthcare epidemiology.

SHEA and its members are committed to implementing evidence-based strategies to prevent healthcare-associated infections (HAIs). SHEA members have scientific expertise in evaluating potential strategies for eliminating preventable HAIs. We collaborate with a wide range of infection prevention and infectious disease societies, specialty medical societies in other fields, quality improvement organizations, and patient safety organizations in order to identify and disseminate evidence-based practices.

Our principal partners in the private sector are sister societies such as the Infectious Diseases Society of America (IDSA) and the Association of Professionals in Infection Control and Epidemiology (APIC). The Centers for Disease Control and Prevention (CDC), its Division of Healthcare Quality Promotion (DHQP) and the federal Healthcare Infection Practices Advisory Committee (HICPAC), and the Council of State and Territorial Epidemiologists (CSTE) have been invaluable federal partners in the development of guidelines for the prevention and control of HAIs and in their support of translational research designed to bring evidence-based practices to patient care. Further, collaboration between experts in the field (epidemiologists and infection preventionists), CDC and the Agency for Healthcare Research and Quality (AHRQ) plays a critical role in defining and prioritizing the research agenda. More recently, SHEA has aligned with the Joint Commission and the American Hospital Association to produce and promote the implementation of evidence-based recommendations in the *Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals* (<http://www.shea-online.org/about/compendium.cfm>). The organization also contributes expert scientific advice to quality improvement organizations such as the Institute for Healthcare Improvement (IHI), the National Quality Forum, and state-based task forces focused on infection prevention and public reporting issues.

The current swine flu emergency and the Obama Administration's request for an additional \$1.5 billion to address the situation highlights the need for ongoing congressional support of a

national prevention strategy and dedicated funding stream for core public health programs. It is our hope that health reform can serve as an opportunity to strengthen our public health infrastructure and reorient our health system towards prevention and preparedness.

SHEA applauds the Congress for its support of HAI prevention and reduction activities through the American Recovery and Reinvestment Act (ARRA) and the FY 2009 Omnibus Appropriations bill. The Society is collaborating with the Department of Health and Human Services (HHS) and the CDC to translate agency goals and objectives for these funds into actions at the bedside that can achieve meaningful reductions in preventable HAIs. However, SHEA believes that this level of funding is substantially insufficient to address a problem estimated by CDC to be one of the top ten causes of death in the nation and one that poses a significant economic burden on the nation's healthcare system.

SHEA supports the conclusions of last year's GAO report on coordination among HHS agencies related to HAI prevention. We believe that coordinated action among CDC, the Centers for Medicare & Medicaid Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ) is critical. CDC and its Division of Healthcare Quality Promotion should function as the lead agency in surveillance and prevention activities related to HAIs at the federal level because of its historic and successful role in this area. CDC has had an enviable track record of prevention and its development and management of the foremost surveillance system of its kind, the National Healthcare Safety Network (NHSN) has created a national resource that many states have now mandated as their public reporting tool. Furthermore, guidelines developed by the HICPAC are widely regarded as the standards for the field. Coordinated activity among the agencies can lead to better informed public policy and payment reform.

Clearly, the CDC plays a critical role in public health protection through its health promotion, prevention, preparedness and research activities. As you consider FY 2010 funding levels for the CDC, **SHEA urges your support of at least \$8.6 billion for CDC's "core programs"** [not including the mandatory funding provided for the Vaccines for Children Program (VFC)] to ensure that the agency is able to carry out its prevention mission and to assure an adequate translation of new research into effective state and local programs. In addition to maintaining a strong public health infrastructure and protecting Americans from public health threats and emergencies, SHEA strongly believes that CDC programs play a vital role in reducing healthcare costs and improving the public's health.

Within this total, SHEA recommends a FY 2010 funding level of **\$2.4 billion for CDC's Infectious Diseases program budget** which supports vital management and coordination functions for infectious disease science, program, and policy, including infectious disease specific epidemiology and laboratory activities. In particular, SHEA believes that protecting and improving resources for implementation of programs that standardize measurement of appropriate HAI outcomes and performance measures should be a priority. Our most valuable resource in this regard is NHSN, a voluntary, secure, internet-based surveillance system that integrates and expands patient and healthcare personnel safety surveillance systems. Many states consider NHSN to be the best option for implementing standardized reporting of HAI data. NHSN has now been adopted by 19 states and more than 2,100 US hospitals for the surveillance and reporting of HAIs. It is an enormously important national resource and effective funding

and support is essential to expand its implementation. Further, recognizing that multiple states mandate the use of NHSN for state public reporting, immediate efforts should be made to enable interfaces between electronic health records (EHRs) and NHSN. In this way, additional burdens are not placed upon healthcare entities from either an infection prevention and control or information technology (IT) perspective as the desirability for national database integration proceeds.

As already noted, **SHEA believes that additional federal dollars should be appropriated for HAI prevention and reduction to build upon the investment already made through the ARRA and FY 2009 Omnibus Appropriations bill.** It is SHEA's perspective that additional funding in this area will have the greatest impact when prioritized in the following ways:

- SHEA strongly encourages an emphasis on implementation of **evidence-based practices (EBP)**, as supported by guidelines (CDC-HICPAC) and evidence-based recommendations (*Compendium of Strategies to Prevent Healthcare-Associated Infections in Acute Care Hospitals*). Protecting the health of our patients and preventing HAIs in the settings where healthcare is delivered in the United States will require a multi-faceted approach that includes identification and widespread adoption of evidence-based best practices. Where evidence does not exist, uniformity in practice should be adopted and studied to determine effectiveness. Failed practices should be discarded and successes widely disseminated. Prevention and control of HAIs also will require better tools in the form of new and novel antimicrobial agents, better knowledge of strategies to effect implementation and adherence to proven prevention methods, and accountability for performance.
- SHEA supports investment in **training and education programs** for both hospital-wide personnel, local public health personnel and patients/families in evidence-based prevention practices and development of educational materials /tools for patients and families with respect to HAI and multiple drug resistant organisms (MDRO).
- SHEA supports a **broad context for use of dollars for HAIs** rather than pathogen-specific targets or mandates (e.g., on MRSA or *C. difficile*). Ideally, funding should be tied to locally identified priorities emphasizing that implementation of best practice bundles for catheter-associated bloodstream infections (CLA-BSI), ventilator-associated pneumonia (VAP) and catheter-associated urinary tract infection (CA-UTI) will have a greater impact on prevention of HAIs, including those due to MDRO, than pathogen-specific practices. This approach recognizes the influence of local conditions on the control of healthcare-associated infections, and allows rapid modification of strategies as new knowledge is gained. As an example, SHEA and CMS emphasize that a risk assessment must be the first step in any epidemiologic study or infection prevention and control program in order to target preventive efforts effectively. We are pleased that the Joint Commission supports this critical step by developing it into a basic infection prevention standard. SHEA believes that this strategy allows healthcare facilities to use local information to develop and implement optimal and individualized prevention plans designed to reduce healthcare-associated infections that are identified as local problems. Goals should be written in such a way to allow hospitals the flexibility to identify and

target their own safety threats within the domains that are considered critical, and healthcare facilities should be expected to be able to justify their infection prevention program based on local risk assessments.

- SHEA supports investment in **hospital infrastructure** and qualified personnel for infection prevention and control including epidemiologists, infection prevention and control professionals, NHSN implementation, and adequate microbiology/lab diagnostic capability as dictated by locally derived needs assessment and priority.
- SHEA believes that **funds made available through CDC and AHRQ should be used, in part, for translational research projects that can allow more rapid integration of science into practice.** As an example, this could involve use of funds to support positions through which large collaboratives could be supported in states not currently part of AHRQ or HRET projects (for example PHRI and Keystone, which have achieved successful reductions in device-associated infections). Experts in the field (Epidemiologists and Infection Preventionists), in collaboration with CDC and the AHRQ, should be engaged in order to further define and prioritize the research agenda. As we strive to eliminate all preventable HAIs, we need to identify the gaps in our understanding of what is actually preventable. This distinction is critical to help guide subsequent research priorities and to help set realistic expectations. SHEA believes in the importance of conducting basic, epidemiological and translational studies (to fill basic and clinical science gaps). While health services research (i.e., successful implementation of strategies already known or suspected to be beneficial) may provide some immediate short-term benefit, to achieve further success, a **substantial investment in basic science, translational medicine, and epidemiology is needed** to permit effective and precise, interventions that prevent HAIs.
- SHEA strongly favors **local decision-making about priorities for use of funds;** however, state efforts should be aligned with CDC priorities and should be carried out through collaboration with key stakeholders such as state hospital associations and local experts. CDC should lead the effort to measure and report on the success of state prevention efforts to HHS.

With respect to the National Institutes of Health (NIH), SHEA is very pleased that the American Recovery and Reinvestment Act infused the Institutes with billions of dollars for research projects that will enable growth and investment in biomedical research and development, public health and health care delivery. The NIH is the single-largest funding source for infectious diseases research in the US and the life-source for many academic research centers. The NIH-funded work conducted at these centers lays the ground work for advancements in treatments, cures, and medical technologies. We applaud Congress for acknowledging the impact of scientific research in stimulating the economy.

SHEA believes that any national effort designed to address the problem of HAIs should begin with the following principles: scrutiny of the science base; development of an aggressive, prioritized research agenda; the conduct of studies that address the identified questions; creation

and deployment of guidelines based on the outcomes of these studies, followed by studies that assess the efficacy of the intervention.

In order to determine the preventability of infections, we first need to understand how and why these infections occur. A comprehensive national research agenda on HAIs must include at least three major categories of research: pathogenesis, epidemiology, and infection prevention strategies. A fourth area of, perhaps, even greater importance is the development and use of improved approaches to the design of healthcare epidemiology studies. Carefully designed multicenter prospective clinical trials are needed to establish the effectiveness of prevention and control strategies.

Unfortunately, support for basic, translational, and epidemiological research on HAIs has not been a priority of major funding bodies. Despite the fact that HAIs are among the top ten annual causes of death in the US, scientists studying these infections have received relatively less funding than colleagues in many other disciplines. In 2008, NIH estimated that it spent more than \$2.9 billion dollars on funding for HIV/AIDS research, about \$2.0 billion on cardiovascular disease research, about \$664 million on obesity research and, by comparison, National Institute of Allergy and Infectious Diseases (NIAID) provided \$18 million for MRSA research. SHEA believes that as the magnitude of the HAI problem becomes part of the dialogue on health care reform, it is imperative that the Congress and funding organizations put significant resources behind this momentum.

The limited availability of federal funding to study HAIs has the effect of steering young investigators interested in pursuing research on HAIs toward other, better-funded fields. While industry funding is available, the potential conflicts of interest, particularly in the area of infection-prevention technologies, make this option seriously problematic. These challenges are limiting professional interest in the field and hampering the clinical research enterprise at a time when it should be expanding.

Our discipline is faced with the need to bundle, implement and adhere to interventions we believe to be successful while simultaneously conducting basic, epidemiological, pathogenetic and translational studies that are needed to move our discipline to the next level of evidence-based patient safety. The current convergence of scientific, public and legislative interest in reducing rates of HAIs can provide the necessary momentum to address and answer important questions in HAI research. SHEA strongly urges you to **enhance NIH funding for FY 2010 to ensure adequate support for the research foundation that holds the key to addressing the multifaceted challenges presented by HAIs.**

SHEA thanks for the committee for this opportunity to share our priorities with respect to Fiscal Year 2010 funding for HHS, CDC and the NIH. The Society is pleased to serve as a resource to the committee going forward on issues related to healthcare epidemiology.

