STATEMENT OF
PATRICK CONWAY, MD, MSc

CHIEF MEDICAL OFFICER AND DIRECTOR, CENTER FOR CLINICAL
STANDARDS AND QUALITY
ACTING DIRECTOR, CENTER FOR MEDICARE AND MEDICAID INNOVATION
CENTERS FOR MEDICARE AND MEDICAID

ON
U.S. EFFORTS TO REDUCE HEALTHCARE-ASSOCIATED INFECTIONS

BEFORE THE
U. S. SENATE COMMITTEE ON HEALTH, EDUCATION, LABOR, & PENSIONS

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Chairman Harkin, Ranking Member Alexander, and Members of the Committee, thank you for the opportunity to discuss our work at the Centers for Medicare & Medicaid Services (CMS) to improve the quality of care and patient safety at our Nation’s hospitals. Through Medicare, Medicaid, the Children’s Health Insurance Program (CHIP), and, in 2014, the private health insurance Marketplaces, CMS helps provide health care coverage to over 100 million Americans. We are committed to ensuring that all our beneficiaries receive the highest possible quality of care, and we continually strive to achieve better health outcomes at a lower cost.

Improving patient safety at our Nation’s hospitals is an important goal for the U.S. Department of Health and Human Services (HHS) and CMS. According to the Centers for Disease Control and Prevention (CDC), about one of every 20 patients gets an infection while hospitalized.\(^1\) Healthcare-associated infections (HAIs) are likely the most common type of complication for patients who are hospitalized.\(^2\) HAIs result in billions of dollars of excess healthcare costs.

HHS is committed to improving patient safety by reducing HAIs across the health care system, with hospitals as a prime arena for priority attention, as outlined in the HHS National Action Plan to Prevent Healthcare-Associated Infections: Roadmap to Elimination.\(^3\) One of the Agency Priority Goals is to reduce, by September 30, 2013, the national rate of HAIs by demonstrating significant, measurable reductions in hospital-acquired central line-associated bloodstream infections (CLABSI) and catheter-associated urinary tract infections (CAUTI). Despite the significant burden of HAIs in the United States and the growing threat of antibiotic resistant pathogens, most HAIs are preventable; and the coordinated efforts of CDC, CMS, the Agency

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for Healthcare Research and Quality (AHRQ), and other HHS agencies have resulted in significant reductions in some HAIs. Notably, CDC data indicate that over the last 4 years CLABSIs have declined 44 percent and surgical-site infections (SSI) have declined 20 percent. Last week, CDC also published new data showing dramatic declines in invasive (life-threatening) Methicillin-resistant *Staphylococcus aureus* (MRSA) infections. This study estimated that over 30,000 fewer invasive MRSA infections occurred in all settings in 2011 compared with 2005, and over 9,000 fewer deaths occurred among individuals hospitalized with MRSA. The study also showed a 54 percent decline in serious MRSA infections occurring among patients during hospitalization between 2005 and 2011.

There has also been success in the long-term national declines in CLABSIs. In a recently released paper, CDC authors estimated that between 1990 and 2010, between 104,000 and 198,000 CLABSIs were prevented among critical care patients in the United States. In an analysis currently undergoing peer review, CDC estimated the net economic benefits of preventing CLABSIs in Medicare and Medicaid patients in critical care from 1990 to 2008 ranged from $756 million to $1.9 billion with the corresponding net benefits per case averted ranging from $16,550 to $24,060.

Additionally, CMS has made progress in preventing unnecessary readmissions. From 2007 to 2011, the average monthly 30-day all-cause readmission rate was typically 19 percent or above. Towards the end of 2012, the rate had declined to approximately 18 percent and is now below 18 percent nationally in 2013. If you compare the last 12 months to the baseline in 2010 through 2011, the decrease represents nearly 100,000 Medicare beneficiaries staying home instead of returning to the hospital. This decrease is an early sign that our focus on improving quality and care coordination is beginning to have an impact.

CMS is focused on improving patient safety and care in hospitals through payment incentives, transparency in quality measurement and public reporting, and the testing, scaling, and spreading of effective interventions through quality improvement collaboratives and clinician training. The Affordable Care Act and other laws are now enabling CMS to support better health and promote quality improvement and greater value while creating an environment that fosters
innovation. Our objective is to ensure quality health care for generations to come – not just for Medicare and Medicaid beneficiaries, but for all people who depend on our Nation’s health care system.

Financial Incentives to Improve Quality
In the past, hospitals had little financial incentive to improve the quality of their care because Medicare and other purchasers paid hospitals for treating infections or errors even when they could have been prevented. Now, Medicare, state Medicaid programs, and many private sector health plans and purchasers, are moving rapidly to change payment systems to reward better outcomes instead of volume of services. In Medicare, the combined effect of the Hospital-acquired Conditions (HAC) Program, Hospital Value-Based Purchasing, Hospital Inpatient Quality Reporting Program, and the Hospital Readmissions Reduction Program already are creating strong incentives for hospitals to preempt infections and errors. CMS is working to transform from a passive payer to an active purchaser of higher-value health care services using the following tools.

Hospital Acquired Conditions and Healthcare-Acquired Infections
Since 2008, Medicare payment policy has further encouraged hospitals to identify ways to prevent certain HACs or conditions that are not present on admission. For these designated conditions, while Medicare pays hospitals the standard rates for the original admission, we no longer pay hospitals for the additional costs associated with the care and treatment of these HACs. In 2012, CMS added additional HACs to the list of conditions that would warrant CMS eliminating additional payments. CMS clinical quality experts have worked closely with public health and infectious disease experts from CDC to identify and select additional preventable HACs, including HAIs to add to this list.

CMS has issued similar guidelines for Medicaid to incentivize provider-level quality improvement and cost-savings for states by requiring states to reduce Medicaid payments for hospital errors. Medicaid also funded the Transformation Grants, which aim to improve

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4 A complete list of HAC categories and their corresponding complication or comorbidity (CC) or major complication or comorbidity (MCC) codes finalized for FY 2013 can be found at: http://www.cms.gov/Medicare/Medicare-fee-for-service-Payment/HospitalAcqCond/Downloads/HACFactsheet.pdf
Medicaid’s effectiveness and efficiency. For example, the Transformation Grants funded efforts to reduce central-line infections for premature infants in neonatal intensive care units.

In addition, section 3008 of the Affordable Care Act established the HAC Reduction Program to further reduce HACs and improve patient quality. CMS will begin implementing this program starting in Fiscal Year (FY) 2015 with the performance period starting this year. Under the HAC Reduction Program, hospitals in the lowest-performing quartile with respect to the overall rate of certain HACs will see their payments reduced by one percent, providing an incentive for those hospitals to reduce the burden of HACs in their facilities.

**Hospital Value-Based Purchasing Program**

CMS has implemented programs to strengthen payment incentives to improve the quality of hospital care furnished to traditional fee-for-service Medicare beneficiaries. As required by the Affordable Care Act, beginning with October 2012 discharges, CMS began adjusting Medicare payments to most hospitals for inpatient acute care services based on how well they performed on a series of quality measures. This program, called the Hospital Value-Based Purchasing Program, is a carefully crafted program that was developed in a manner that incorporated significant stakeholder feedback.

The quality measures used in the program are consistent with evidence-based clinical practices for the provision of high-quality care. Hospitals are scored on improvement as well as achievement on a variety of quality measures. The higher a hospital’s total performance score during a performance period, the higher the hospital’s value-based incentive payment will be for a subsequent fiscal year. For fiscal year 2014, the Hospital Value-Based Purchasing Program will redistribute an estimated $1.1 billion to hospitals based on their quality performance. We recently added the CLABSI measure beginning with the FY 2015 program, and we finalized the addition of the CAUTI and SSI measures to the program for the FY 2016 program. In the future, CMS expects to add new measures to the program that focus on patient health outcomes, cost reduction, and HAIs that significantly impact Medicare beneficiaries and reflect substantial quality of care variation among hospitals.
**Hospital Inpatient Quality Reporting Program**

The Hospital Inpatient Quality Reporting Program gives hospitals a financial incentive to report the quality of their inpatient services by tying the reporting of designated quality measure data to their ability to be paid the full amount of the annual update to the Medicare inpatient payment rate. CMS has adopted a number of HAI measures for the program, and some of this data is collected on CMS’ behalf by the CDC through that agency’s National Healthcare Safety Network (NHSN). The CDC has developed the HAI measures that are used in the Hospital IQR Program, and provides hospitals with additional analytic tools that enable them to assess their rates of performance and identify where additional efforts are needed. The HAI measures that hospitals currently report to the NHSN as part of the Hospital IQR Program are CLABSI, CAUTI, SSI, *Clostridium difficile*, and MRSA data.

**Hospital Readmissions Reduction Program**

The Affordable Care Act also established the Hospital Readmissions Reduction Program, which reduces Medicare payments to hospitals that have excess readmissions beginning in October 2012. Currently, we measure the readmissions rates for three very common and expensive conditions for Medicare beneficiaries—heart attack, heart failure, and pneumonia. We recently finalized expanding the readmissions program with measures for two more common conditions—chronic obstructive pulmonary disease and knee and hip replacements. These measures will be added to the program in FY 2015.

The readmissions program—together with other Affordable Care Act payment and delivery reforms—is already having a positive impact. As discussed above, we are observing a significant decrease in the rate of patients returning to the hospital after being discharged. This decrease is an early sign that our payment and delivery reforms are having an impact.

**Quality Measurement and Public Reporting**

In order to achieve meaningful quality improvements, performance on care delivery and outcomes should be measured using reliable, nationally-endorsed measures. These measures must provide information that is timely, actionable, and meaningful to both providers and patients. CMS is aligning the existing reporting requirements for the financial incentive
programs described above, and encouraging the adoption of broad scale electronic reporting of quality data. These quality measures are generally endorsed by the National Quality Forum, meet clinical validity and reliability requirements, and align with the National Quality Strategy. We are increasing our focus on patient-centered outcome measures that matter most for improving health. Our vision for the future of quality reporting is to implement a unified set of electronic quality measures and e-reporting requirements to synchronize and align CMS quality programs, reduce provider burden, and maximize efficiency and improvement.

Electronic Health Records Incentive Programs and Meaningful Use

The American Recovery and Reinvestment Act of 2009 provided support to physicians and other providers who adopt electronic health records by establishing the Medicare and Medicaid Electronic Health Records (EHR) Incentive Programs. EHRs can make it easier for physicians, hospitals, and others serving Medicare and Medicaid beneficiaries to evaluate patients’ medical status, eliminate redundant and costly procedures, and provide high-quality care. Through diagnostic and therapeutic decision support, clinical alerts and reminders, medication reconciliation, and built-in safeguards, EHRs can help providers make safe, effective decisions and provide high-quality care for their patients.

Participation in the Medicare and Medicaid EHR Incentive Programs has been robust. Approximately 80 percent of all eligible hospitals and critical access hospitals in the United States have received an incentive payment in the Medicare and Medicaid EHR Incentive Programs for adopting, implementing, upgrading, or meaningfully using certified EHR technology. As of July 2013, over 315,000 hospitals, doctors and other healthcare professionals have become meaningful users. Additionally, more than 50 percent of eligible professionals have adopted EHRs and received incentive payments from Medicare and Medicaid. Forty-nine states and four territories have launched their Medicaid EHR Incentive Programs. Those states have paid almost $2.25 billion in incentive payments to over 99,000 Medicaid-eligible professionals.

Coordinating Quality Reporting Programs

Though the quality-reporting and performance-based payment programs described above originate through separate statutory authorities, CMS strives to streamline reporting mechanisms across programs in order to reduce the burden on providers. For example, quality measures in the Inpatient Quality Reporting Program supply data underlying payment adjustments in the Readmissions Reduction Program as well as the Value-Based Purchasing Program. Similarly, CMS has coordinated with agencies throughout HHS to consolidate similar quality measures and to support adoption of high-priority measures based on stakeholder input and input from the National Quality Forum’s Measures Application Partnership. In FY 2014, we are also aligning the submission of hospital clinical quality measures under the Medicare EHR Incentive program with the hospital Inpatient Quality Reporting (IQR) program. Hospitals will now have the option of submitting 16 of the IQR measures electronically, which would satisfy the CQM component of the Medicare EHR Incentive program as well as the reporting requirement for these measures under the IQR program.

Transparency for Consumers through Hospital Compare and HealthCare.gov

Clear, understandable information that is easy to access helps consumers make informed decisions about their health care, and gives them an important role in reducing and preventing HAIs. CMS created the Hospital Compare Website\(^6\) to better inform health care consumers about a hospital’s quality of care. This tool, which includes CDC’s NHSN HAI measure results and data, shows a hospital’s performance on a wide variety of quality measures, including certain measures of healthcare infections. In the coming years, additional measures will be added to the Hospital Compare website, making this an even richer source of information for consumers.

Based on priorities identified in the National Quality Strategy, and authority in the Affordable Care Act, CMS is interested in promoting effective quality measurement through the Marketplace. To that end, HHS’s strategy for establishing quality-reporting requirements to ensure that high quality health care is delivered through the Marketplace includes the consideration of existing relevant quality measure sets and quality improvement initiatives in conjunction with other factors, such as characteristics of the Marketplace population. HHS is

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\(^6\) For more information on the Hospital Compare Website please visit: [http://www.medicare.gov/hospitalcompare](http://www.medicare.gov/hospitalcompare).
engaging states, employers, consumer advocates, health insurance issuers, and other stakeholders as we continue to develop these quality-related requirements, and we issued a Request for Information on November 27, 2012. CMS intends to propose a phased approach to quality reporting and display standards for all Marketplaces. CMS intends that no new quality reporting standards for qualified health plans and Marketplaces will be in place until 2016 (other than those related to accreditation, if applicable), which allows time to develop standards appropriately matched to the Marketplace enrollee population and plan offerings. Until final regulations are issued, state-based Marketplaces would have the choice of adopting a similar approach or implementing their own quality reporting standards immediately and over time. This information will eventually be available for consumer-use on the HealthCare.gov website.

CMS recently released new datasets to promote transparency. This includes a dataset on hospital charges, including information comparing the charges for services that may be provided during the 100 most common Medicare inpatient stays. Moreover, CMS also recently released selected hospital outpatient data, including estimates for average charges, for 30 types of hospital outpatient procedures. It also released county-level data on Medicare spending and utilization in an easy-to-use dashboard format. This data enables comparisons between the amounts charged by individual hospitals within local markets, and nationwide, for services that may be provided during similar inpatient stays. CMS has also made approximately $87 million available to help states to establish and enhance effective Rate Review programs as well as to enhance or establish data centers that increase health pricing transparency. The data centers’ work helps consumers better understand the comparative price of procedures in a given region or for a specific health insurer or service setting. Businesses and consumers alike can use these data to drive decision-making and reward cost-effective provision of care.

Consumer-focused websites, including Hospital Compare and Healthcare.gov, are using quality measures to improve healthcare transparency. These sites allow consumers to view and compare

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information about the insurance plans and hospitals in their area, and pick the one that is best for them and their families. Through publicly reported quality measures, consumers and payers are better able to compare costs, review treatment outcomes, assess patient satisfaction, and hold providers accountable. This is done while ensuring the protection of personal health information and adjusting for factors beyond providers’ control. Reporting also provides important resources and motivation for clinicians and other providers to improve performance.

**Scaling and Spreading Effective Interventions for Quality Improvement**

As mentioned earlier, significant progress has been made to reduce HAIs. With this success, CMS has expanded its focus to ensure that quality continues to improve and the healthcare delivery system continues to transform through the testing and spreading of effective interventions.

**Quality Improvement Organizations**

Public and private efforts to support providers’ desire to deliver higher quality care are critically important. These include programs sponsored by provider organizations and clinical specialty groups and quality improvement organizations (QIOs) that work cooperatively with physicians, hospitals, nursing homes, home health agencies, and others to disseminate research evidence to the point of care, share best practices and provide technical assistance.

Through large-scale learning networks, QIOs accelerate the pace of change and rapidly spread best practices. Improvement initiatives encourage innovation, respond to community needs, and lead the way to patient-centered care by including an active role for Medicare beneficiaries. Some of the QIOs’ current initiatives include contributing to the goal of achieving significant reductions in HACs, including HAIs; working with nursing homes to reduce pressure ulcers; reducing CLABSI; reducing re-hospitalizations by engaging communities to improve the quality of care for beneficiaries as they transition between settings; and boosting population health by improving use of electronic health records for care management. Additionally, CMS and CDC collaborate using HAI data to target prevention with the QIO networks.  

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10 Details about each of these projects is available at http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityImprovementOrgs/Current.html
Survey & Certification
The survey and certification program of CMS is designed to ensure that providers and institutional suppliers comply with the applicable health and safety standards. Many types of facilities that participate in Medicare or Medicaid are subject to unannounced, onsite inspections by state or Federal surveyors to be certified under those programs. Currently, the CMS Survey & Certification Group oversees compliance with health and safety standards developed in coordination with the CDC for more than 271,000 health care facilities of different types, including hospitals, laboratories, nursing homes, home health agencies, hospices, and end-stage renal disease facilities. For example, CMS is collaborating with CDC to expand survey and oversight capacity of non-acute healthcare settings and develop a new tool that state inspectors are using to ensure the quality of care in ambulatory surgical centers.

Partnership for Patients
The nationwide Partnership for Patients initiative aims to avert millions of preventable HACs and reduce hospital readmissions over three years, while providing savings to Medicare and Medicaid by reducing complications and readmissions during the transition from one care setting to another. Over 3,700 hospitals, as well as physicians and nurses’ organizations, consumer groups, employers, and other major stakeholders, have pledged to help achieve the Partnership’s goals.

Twenty-six Hospital Engagement Networks (HENs), which work at the national, regional, state, or hospital system levels, are identifying best practices and solutions in reducing HACs and readmissions and disseminating information to health care providers and institutions, nationwide. The HENs are focused specifically on 10 high-priority areas.11 Associations and hospital systems like the American Hospital Association, Ascension Health, and the Michigan Hospital Association are serving as hospital engagement networks.

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11 The Partnership for Patients ten safety areas of focus are: adverse drug events, CAUTI, CLABSI, injuries from falls and immobility, obstetrical adverse events including early elective deliveries, pressure ulcers, SSI, venous thromboembolism, ventilator-associated pneumonia, and hospital readmissions.
Work by hospital engagement networks that are funded by CMS’s Center for Medicare and Medicaid Innovation (Innovation Center) is buttressed by collaboration and alignment of other Federal and private partners. Hundreds of private partners team with HENs and Federal programs to spread best practices. As one example, the American Congress of Obstetricians and Gynecologists works in partnership with CMS, HRSA, and others to support their members in taking actions to reduce early elective deliveries performed without medical indications, which are known to cause harm to babies.

Initial emerging results are encouraging. For example, more than 1,000 birthing hospitals in the Partnership have already generated a 48 percent reduction in early elective deliveries. Improvements are being seen across nearly all other hospital-acquired conditions targeted by the Partnership. The Partnership for Patients is achieving early promising results, demonstrating the potential to accomplish national patient safety goals through collaborative improvement.

**CMS’s Innovation Center**

The Affordable Care Act provided CMS with valuable tools to test methods to improve the health care delivery system by creating the Innovation Center. The Innovation Center is focused on testing new payment and service delivery models to reduce program expenditures while preserving or enhancing the quality of care furnished. The Innovation Center enables CMS to quickly and efficiently develop innovative payment and service delivery models along with a broad range of stakeholders. Some of the models being tested by the Innovation Center include efforts to reduce unnecessary hospital admissions among residents of nursing homes; improve care coordination for beneficiaries in Accountable Care Organizations; and incentivize primary care providers to offer high-quality, coordinated care. While the work of the Innovation Center tests many payment and service delivery models, these initiatives are only a part of our efforts to build a health care delivery system that will better serve all Americans.

The Community-Based Care Transition Program supports 101 community-based organizations working in partnership with 432 acute-care hospitals to help high-risk Medicare beneficiaries residing in 40 states make successful transitions from hospital to home or to another post-hospital setting. Hospitals are a logical focal point for efforts to reduce readmissions, since the
quality of care during a hospitalization and the discharge planning process can have an impact on whether a patient will continue to heal or return. However, it is clear that there are multiple factors along the care continuum that affect readmissions. The program links acute-care hospitals with home- and community-based service providers through formal partnerships. These partnerships between traditional medical providers and local social service providers are believed to be critical in reducing avoidable hospital readmissions among high-risk Medicare beneficiaries.

The Innovation Center is also testing new ways to efficiently deliver care and lower costs through its Health Care Innovation Awards. Round One of these three-year awards focused on engaging a broad set of innovation partners to test new care delivery and payment models; identify new models of workforce development and deployment; and support innovators who can rapidly deploy care improvement models through new ventures or expansion of existing efforts to new patient populations. Collectively, these awardees are testing models designed to address a broad range of health care challenges. These range from a sepsis early recognition and response initiative to a multi-provider collaboration to create community-wide health intervention teams that help people get fast and appropriate care, reduce unnecessary hospitalizations, and lower costs. Each model will be evaluated on its ability to improve the quality of care and lower the cost for the target population it is designed to serve.

The first round of Health Care Innovation Awards ranged from approximately $1 million to $26 million were announced in May and June 2012 to 107 total participants. For example, the Methodist Hospital, in partnership with the Texas Gulf Coast Sepsis Network, is receiving an award to identify and treat sepsis before it progresses. Sepsis is the sixth most common reason for hospitalization and typically requires double the average length of stay. It complicates 4 out of 100 general surgery cases, has a 30-day mortality rate of 1 in 20, and leads to complications such as renal failure and cognitive decline. Through improved training, evidence-based and systematic screening for sepsis, and more timely treatment, Methodist Hospital and its partners aim to prevent progression of the disease, resulting in reduced organ failure rates, reduced mortality, reduced length of stay, improved patient outcomes, and lower costs.
Coordination with Stakeholders

Collaboration among multiple stakeholders in the healthcare community is necessary to spread and sustain reductions in HAIs on a broad scale. Collaboration leverages the combined programmatic efforts of stakeholders both across HHS and with external partners such as the Departments of Defense and Veterans Affairs, state governments, academic institutions, and provider and patient groups. For example, CMS, CDC, AHRQ, and state health departments continue to collaborate on HAI data-validation strategies to optimize the accuracy of data reported. Another example is AHRQ’s Comprehensive Unit-Based Safety Program for CLABSI project, which, over the period 2008 through 2012, reduced the rate of CLABSI by 41 percent in over 1,000 Intensive Care Units across the country.

Additionally, various agencies across HHS collaborate to find system integration solutions in order to obtain reliable national estimates of HAIs for a more accurate view of the overall issue. To ensure that all Departmental HAI prevention assets are fully leveraged and coordinated, the Office of the Assistant Secretary for Health oversees a Senior-Level Steering Committee for Prevention of HAIs. With senior-level participation from across HHS, in 2009, this committee released a National Action Plan for the Prevention of Healthcare Associated Infections. This plan outlined opportunities and strategies to decrease HAIs in acute-care hospitals. In June 2013, HHS released a revised and updated version of the National Action Plan that expanded HHS’ coordinated efforts in HAI reduction to non-acute care settings including ambulatory surgical centers, long-term care facilities, and end-stage renal disease facilities.

HHS is strengthening and building new partnerships to amplify prevention messages, promote the implementation of recommended practices in hospitals, ambulatory surgical centers, end-stage renal disease facilities, and long-term care facilities, and monitor progress at the national, regional, and local levels. Through continued emphasis on coordinating programs and strengthening our network of resources, CMS and its partners are able to provide technical assistance, testing, and financial support for the development and implementation of strategies to prevent HAIs, particularly those focused at the level where patient care occurs.
Looking Forward
By aligning payment incentives and checking our progress through quality measures, we, in collaboration with our partners in HHS and the private sector, have made significant improvements in reducing HAIs and improving care and patient safety in hospitals. Through the work of the QIOs, Partnership for Patients, and the Innovation Center, we are beginning to test and develop new strategies that could lead to broader, national improvement. We recognize, however, more work is needed to innovate and find the solutions and technology to ensure that no patient suffers from an infection or condition that could have been prevented. Your interest today contributes to that progress, and I would be happy to hear your concerns or answer your questions about this important, lifesaving subject. Thank you for the opportunity to testify.