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FIRST, DO NO HARM: IMPROVING HEALTH QUALITY AND PATIENT SAFETY

HEARING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED TWELFTH CONGRESS

FIRST SESSION

ON

EXAMINING IMPROVING HEALTH QUALITY AND PATIENT SAFETY

MAY 5, 2011

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C O N T E N T S

STATEMENTS

THURSDAY, MAY 5, 2011

FIRST, DO NO HARM: IMPROVING HEALTH QUALITY AND PATIENT SAFETY

THURSDAY, MAY 5, 2011

U.S. SENATE,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:02 a.m. in Room 430, Dirksen Office Building, Hon. Tom Harkin, chairman of the committee, presiding.

Present: Senators Harkin, Mikulski, Franken, Bennet, Whitehouse, Enzi.

OPENING STATEMENT OF SENATOR HARKIN

The CHAIRMAN. Good morning everyone. The Committee on Health, Education, Labor, and Pensions will come to order.

We have convened this hearing to discuss a new strategy and initiative recently announced by the Department of Health and Human Services to improve the quality of health care by emphasizing patient safety and reducing medical errors.

In addition to saving tens of thousands of patients' lives, the department estimates that this new effort will save up to $35 billion in healthcare costs, including up to $10 billion for Medicare alone.

In the late 1970s, a group of researchers began to examine the reports of patients' deaths and injuries caused by anesthesia. They found wide variation in quality and a disturbing incidence of medical errors leading to 6,000 deaths or serious injuries annually. ABC's 20/20 news program covered the study, and the modern patient safety movement was born.

But the urgency and importance of this cause was brought into sharpest focus by the Institute of Medicine's landmark 1999 study, To Err is Human, it was called. It sent a shockwave though the medical establishment. The Institute of Medicine found that almost 100,000 preventable deaths and many times that number of injuries occurred annually in the Nation's hospitals.

Since then, conscientious and innovative providers, scholars, and public officials have made great strides in improving quality of care for all Americans. Our witnesses today will talk about some of these life-saving innovations.

For example, CEO Tim Charles will describe how Mercy Medical Center in Cedar Rapids, IA has achieved extraordinarily low re-admission rates by sharing information and best practices with competitors and by establishing a free clinic for uninsured patients. These practices led the Commonwealth Fund to name Mercy a high

performing hospital, and also the Institute for Healthcare Improvement also named Mercy a high performing hospital.

As chief medical officer, Dr. Philip Mehler will tell us how Denver Health System has created a quality assurance system of incentives, centralized leadership, and focus on high risk populations. As a result, it is ranked first among 112 academic medical centers for patient safety.

The Affordable Care Act makes the greatest single investment in quality improvement in history, building on models like those I just described. It is on these vital investments that our hearing will focus today. For the first time, the law gives public officials, providers, payers, and other stakeholders the tools to reward high quality, not high volume care. And perhaps most importantly, the law stops payment for bad care. So I am pleased to see that the Administration is using these tools to aggressively attack weaknesses in our healthcare system.

In March, the Department of Health and Human Services released a comprehensive National Quality Strategy that promises to drive broad quality improvement across both public and private markets. And in mid-April, the administration announced a patient safety initiative, the Partnership for Patients.

As Dr. Clancy will describe, the Partnership's aims are ambitious: to reduce preventable hospital acquired conditions by 40 percent by 2013, to reduce hospital re-admissions by 20 percent by 2013. In addition to the patient lives that will be saved through these efforts, HHS estimates that reducing medical errors will save up to $35 billion, as I said earlier.

We need bold action. Just last month a study published in the journal *Health Affairs* used a detection tool created by the Institute for Healthcare Improvement, and found that on average a third of patients admitted to hospitals suffer a medical error or other adverse event, which is 10 times greater than previously thought. Findings like these show that the new quality improvement tools come just in time and cannot be implemented too quickly.

I look forward to hearing our witnesses' perspectives on this national challenge.

I will yield to our Ranking Member, Senator Enzi.

OPENING STATEMENT OF SENATOR ENZI

Senator ENZI. Thank you, Mr. Chairman.

We can probably all agree that our current health care system often fails to deliver high quality care and rewards inefficiency. I support policies that will create real incentives for healthcare providers to improve the quality of care they provide to their patients.

I'm deeply skeptical, however, of any government initiative that claims it can save 60,000 lives and $35 billion over the next 3 years by improving the quality of care provided to patients. This is especially true for a proposal that relies on voluntary grants to hospitals and other providers to encourage them to modify long standing behaviors which are often encouraged by current government payment systems.

The new Partnership for Patients will spend $1 billion to fund new research at the Center for Innovation at CMS and provide grants to hospitals and other interested parties to reduce the num-

ber of patients readmitted to hospitals to treat the same or related conditions.

The AHRQ Partnership Initiative is providing grant monies to encourage providers to do the very things they should already be doing for their patients. While this may be physically attractive because it wins the support of all the stakeholders who will receive grant funds, I see very little evidence that it will actually change the fundamental problems that exist in the current system. Unfortunately, the Federal Government does not have a very good track record in implementing such reforms.

The agency charged with carrying out these policies, the Centers for Medicare and Medicaid Services, CMS, has a long record of missed deadlines and failures to implement policies that were intended to reduce Medicare spending. Further, we have seen little evidence that the program will have rigorous standards for accountability, which would create both incentives and penalties for providers who will fail to fundamentally improve their performance.

The Administration's witness today, Dr. Carolyn Clancy, has also seen firsthand the challenges of getting providers to modify their clinical practices. Her agency has been publishing best practices guidelines for years, but efforts to fundamentally transform systems of care to promote quality and lower costs remain almost an aspirational goal.

I am not alone in expressing skepticism about the effectiveness of these types of proposals. In March 11, 2010, in a letter to Senate Majority Leader Reid, the Congressional Budget Office estimated the direct revenue and spending effects of proposals to develop new patient care models, including the new CMS Innovation Center, and the Community-Based Care Transition program, would produce a net cost to the government of $200 million over 5 years.

In short, according to the Congressional Budget Office, the types of proposals we are discussing today will not produce any savings for the foreseeable future, on the contrary, they will have a net cost.

I believe that healthcare providers like Dr. Charles and Dr. Mehler, who will testify at our second panel, should be applauded for their efforts to promote quality and improve care, even without these incentives. I look forward to learning more about the specific policies and practices they have implemented to improve the care they provide. Hopefully their testimony can help inform us about the types of actions the government could take that actually will encourage providers to make the changes that are necessary to really improve the care they provide their patients.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Enzi.

I would like to yield also for a statement by Senator Mikulski, who was the leader of our effort. When we did the Affordable Care Act, we broke up into teams and she led the team on this very issue of quality improvement and did an outstanding job of putting that together for the Affordable Care Act. I will yield to Senator Mikulski.

STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. Thank you very much, Senator Harkin, for convening this really important hearing, and what I think is one of the most important issues on how we can save lives and save money, which is our emphasis on practical health quality endeavors.

You are exactly right, when Senator Kennedy asked us to take on various aspects of the healthcare initiative, he asked me to take on the quality issues, and we did it, and we all worked as a team.

The Patient Protection and Affordable Care Act had important quality provisions. It had four guiding principles, and I think it would go very much to some of the points made by Senator Enzi.

One, we wanted to make sure we introduced health IT, that it really provided a new way of keeping track of patients and keeping track of care. We also wanted to have health interoperability, so we wouldn't have a techno disaster.

Second, we wanted to apply best practices and evidence-based medicine to care for delivery. We looked initially at the famous Institute of Medicine report, To Err is Human.

The third was to improve care coordination, and then the fourth, of course, was that all quality ultimately rests not on technology, but on our workforce who operates the technology.

We emphasized evidence-based practices, like the famous Pronovost Checklist developed by Dr. Pronovost of my hometown at Johns Hopkins. Practical, low tech, but empowered nurses, could, in the hospitals just by emphasizing basic Florence Nightingale hygiene principles, save lives by preventing infection.

We could go through a whole list of these things, but our whole idea on quality was it doesn't have to be expensive. It doesn't have to be shock and awe medicine. In fact, often shock and awe medicine is part of the problem, an overuse of antibiotics that makes us drug resistant, and low-tech problems like not washing hands.

I look forward to hearing the testimony today from the witnesses. I know Dr. Clancy comes with a very distinguished background—has been an award winner.

But I must say, in looking at the Administration results so far, for $1 billion I find it a bit thin. And perhaps it is only in the materials that I have read, or that we are at the initial stage, but I give $1 billion a year to the National Institutes of Standards. They employ 4,000 people in Gaithersburg, and they develop the standards for every major product that comes on from new tech, to what should be the building standards so we don't have another collapse like at the World Trade Center. I think for $1 billion, either this is in the beginning or not, but we could be getting a lot more value in this area. Perhaps I don't have enough knowledge or information.

I look forward to hearing from you, Dr. Clancy, because you have a history of being steadfast and persistent in achieving quality objectives.

Thank you very much, Mr. Chairman, for your ongoing oversight in this important matter.

[The prepared statement of Senator Mikulski follows:]

PREPARED STATEMENT OF SENATOR MIKULSKI

Thank you, Chairman Harkin and Ranking Member Enzi, for calling this hearing to discuss implementation of health reform's quality provisions and to hear from hospitals who have been successful in cutting costs and reducing waste, while enhancing the quality of patient care.

I remember when this committee began our work on health reform, and I remember when Senator Kennedy asked me to lead the quality working group. He asked me to work with members of this committee, both Republicans and Democrats, to craft sections of our new health reform law that work to improve the quality of health care in our country. For all the controversy and drama that surrounded the health reform debate, I believe that, with respect to the quality provisions, this committee largely came together in bipartisan fashion to ensure that our law contained robust provisions that work to improve care for all patients and reduce unnecessary costs. That is something we should all be proud of.

The Patient Protection and Affordable Care Act includes important quality provisions, which support the four priorities that were most important to me throughout the health reform process: it provides comprehensive and health IT interoperability, it applies best practices and evidence-based medicine to care delivery, it improves care coordination, and it strengthens the health workforce.

Using these four quality priorities as a roadmap, we ensured that provisions included in the final health reform law will prevent medical errors, reduce hospital re-admissions, help better manage chronic conditions, strengthen the health workforce and reduce health disparities.

We worked to prevent medical errors and improve care by expanding the Pronovost checklist Nationwide. In Michigan, the checklist saved 1,500 lives, $75 million in 18 months, and virtually eliminated costly and deadly intravenous infections.

We worked to reduce preventable hospital re-admissions, which cost the government an estimated $17 billion per year, by mandating comprehensive discharge planning. This will reduce readmissions within the first 30 days by 30 percent and improve patient health outcomes.

We included provisions to simplify administration procedures and enrollment into health and human services programs with new technology standards. As a result, the administrative savings could be more than $200 billion per year.

We ensured that the final law helps better manage chronic conditions through better coordination and integration of care. Treatment costs for chronic conditions are $277 billion. We created community health teams to support medical homes and to coordinate and integrate care. The community health team model saved North Carolina approximately $260 million in a single year.

The final law includes important provisions, which require dissemination of comparative effectives research, so that providers and patients know what's most effective and have all the information necessary to make educated decisions about their care.

The final law also included a requirement that the Food and Drug Administration (FDA) look into requiring drug fact boxes to

help consumers understand the benefits and risks of the drugs they are considering.

These are only a small subset of the quality provisions included in our health reform law. I look forward to hearing today from Dr. Carolyn Clancy, Director of the Agency for Health Care Research and Quality, about the Partnership for Patients Initiative, which will work to reduce hospital-acquired infections and decrease preventable hospital re-admissions. I am particularly interested in how this initiative will achieve these goals for pediatric populations who face unique health challenges that are very distinct from adults.

I am also interested in hearing more about the National Strategy for Quality Improvement. Particularly, how it will work to combat our Nation's high rates of premature birth and how it will help encourage adoption of the Pronovost checklist nationwide.

Finally, we are fortunate to have witnesses from innovative and forward-thinking hospitals. I look forward to hearing about the successes they've had to improve patient care and reduce health care costs.

Thank you again, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Mikulski for your great leadership in this area. And we all, of course, look to you for your guidance and direction since you did such a great job in putting this in the bill.

Now we will have two panels. Our first panel will be Dr. Clancy. Dr. Carolyn M. Clancy, M.D., was appointed director of the Agency for Healthcare Research and Quality on February 5, 2003, reappointed in February 2009. Prior to that, Dr. Clancy was director of AHRQ Center for Outcomes and Effectiveness Research, a graduate of Boston College and University of Massachusetts Medical School. Before joining AHRQ in 1990, she was also an assistant professor in the department of internal medicine at the Medical College of Virginia. Dr. Clancy is a member of the Institute of Medicine, was elected a master of the American College of Physicians in 2004, and 2009 was awarded the William B. Graham prize for health services research.

Dr. Clancy, welcome to the committee. Your statement will be made a part of the record in its entirety, and if you could sum it up in several minutes or so, we would be most appreciative.

STATEMENT OF CAROLYN M. CLANCY, M.D., DIRECTOR, AGENCY FOR HEALTHCARE RESEARCH AND QUALITY, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, ROCKVILLE, MD

Dr. CLANCY. Thank you. Good morning, Senator Harkin and members of the committee, and thank you for inviting me today to talk about our Administration's efforts to improve the quality and safety of healthcare.

The bottom line is that patients should not go to a hospital afraid and with a realistic fear that they could get sicker, rather than better. Healthcare professionals desperately want to provide the highest quality, safest, most appropriate care for all of their patients. Unfortunately, with the complexity of health care, deficiencies in the systems in which they practice, needed improvements in team-

work and communication, and impaired information flow, high quality, safe healthcare can be perceived as a significant challenge.

The scope of that challenge is staggering. Last November the HHS Inspector General reported that one in seven Medicare beneficiaries is seriously harmed during his or her care in a hospital stay, and less serious harm is equally common. Much of this harm is avoidable and the cost is at least $4.4 billion in Medicare spending every year. And according to the CDC, at one point in time, 1 in 20 inpatients will have a healthcare associated infection.

We are making progress in quality, but overall across all settings and populations, it is much too slow. Data from my agency most recently finds a somewhat glacial pace of 2.3 percent a year improvement.

I am here today to tell you about two very exciting initiatives recently announced by my department, the National Quality Strategy for Quality Improvement in Healthcare, called for under the Affordable Care Act, the first effort to create national aims and priorities to guide and inform local, State, and national efforts to improve healthcare quality. And the Partnership for Patients, a landmark effort launched last month with two basic, fundamental goals. One is to prevent patients from being harmed in the hospital and the second is to reduce the number of preventable re-hospitalizations so that we can catch up to what is going on in your State and that you will be hearing about in the second panel.

I don't want to go into what is in the written testimony already, what I want to do is emphasize three themes. No. 1, the Administration has wasted no time in pursuing activities to improve the quality and safety of healthcare.

At the end of the day, healthcare is very local, so developing strategies to improve quality have to be local. We have been working extensively with States, local communities, and private sector organizations to improve healthcare quality and develop tools that could be scaled and used by others. We have supported some of the efforts, we at AHRQ, ongoing at Denver Health that you will be hearing about.

These efforts were ongoing even before these initiatives I am here to talk about today, and for both the strategy and the partnership we were very careful because we wanted to get extensive feedback from the private sector. A national strategy has to be a public/private partnership. But we have been working on this for years, as Senator Enzi noted, and there are efforts underway across the administration focused on improving healthcare quality.

The second theme I would like to present is both the national strategy and the Partnership for Patients build on a strong foundation of quality improvement. We can and will learn from the people like the witnesses that you will be hearing from in the second panel.

And Mr. Chairman, I just want to thank you for your leadership in providing resources and the foundation for our efforts to combat healthcare associated infections. This funding has allowed us to extend the project Senator Mikulski noted at Hopkins across the country and we are seeing, for those participating hospitals, almost the same dramatic reductions in these deadly infections. There are

other activities underway throughout the administration. VA has made some very dramatic successes in cutting their infection rates.

The third theme is that the success of these initiatives is shared goals, but a lot of flexibility and innovation and in the solutions that are used to achieve those goals. In a nutshell, our improvement efforts do not trickle down from big government, but rather consist of national aims which can be supported and spread with Federal investment.

We know that different communities have different assets and needs. What will work in Iowa, in Des Moines, for example, may be very different than what is likely to succeed in a small town in Wyoming. We would expect those communities to take different paths to achieve common goals.

The role of the Federal Government is to help assure that these local efforts remain consistent with shared national aims and priorities. The success of the partnership will similarly be based on flexibility and supporting and spreading local innovations.

CMS will commit up to a billion in new funding from the Affordable Care Act toward achieving these goals. Half of that funding is associated with a demonstration on community transitions in care, improving transitions that is a separate section from the sections that support the Center for Innovations.

Already more than 1,200 hospitals have pledged their commitment and support to this partnership for patients and in the months to come we expect that to grow. And it is not just hospitals. It is physicians. It is patients and families. It is many, many organizations, and it is employers and those paying for care in the private sector.

In keeping with the idea that healthcare is local, many hospitals have already shown that it is possible to deliver better care, and you have picked two outstanding examples for today. We can greatly reduce or eliminate many types of patient injuries by helping doctors and other healthcare professionals to do what they want to do, which is to provide care that is reliably safe. We are partnering with many public and private sector groups and encouraging them to work together to achieve these national goals.

I want to emphasize again that while the new Center for Innovations, AHRQ, and other Federal agencies have a bit role to play, we know that a top down solution where government employees go into hospitals and tell doctors, nurses, and others what to do to is not the road to success. Success will come from a shared energy, commitment, and teamwork at the local level to improve the quality and safety of healthcare. And frankly, we look forward to learning from their efforts.

Thank you, again, for inviting me to discuss national efforts to improve the quality and safety of our Nation's healthcare system, and I look forward to your questions.

[The prepared statement of Dr. Clancy follows:]

PREPARED STATEMENT OF CAROLYN M. CLANCY, M.D.

Good morning, Senator Harkin and members of the committee. I am very pleased to be here today to talk to you about our Administration's efforts to improve the quality and safety of health care.

The title of this hearing—"First, Do No Harm: Improving Health Quality and Patient Safety"—is very fitting. It is one of the earliest lessons that a medical student

learns, and it is a promise that a medical student makes when he or she receives a white coat on becoming a doctor.

But not doing harm is just the bare minimum for health care; we all strive for so much more.

Health care professionals go to work every day wanting to provide the highest quality, safest, most appropriate care for their patients. The bottom line is that patients should not go to a hospital or other health care setting with a fear that they will get sicker not better.

Unfortunately, with the complexity of health care, deficiencies in the systems in which they practice, needed improvements in teamwork and communication, and impaired information flow, high quality, safe health care may be perceived as a challenge.

We have made progress in engaging doctors, nurses, patients and others involved with our health care system in working together to make the challenge less daunting and high quality, safe health care a reality. However, we have a lot more work to do.

Before I outline two exciting new initiatives recently announced by the Department of Health and Human Services (HHS) to address these challenges, I would like to describe briefly a snapshot of the quality of our health care system to help frame our discussion today.

SCOPE OF THE PROBLEM

The 2010 *National Healthcare Quality Report*, released earlier this spring by my agency, the Agency for Healthcare Research and Quality (AHRQ), found that improvements in health care quality continue to progress at a very slow rate—about 2.3 percent a year.

Data from other sources also highlight the problems:

- In a report last November, the HHS Inspector General found that one out of every seven hospitalized Medicare beneficiaries is seriously harmed in the course of their care and less serious harm is equally common. Almost half of the events are preventable. According to this report (*http://oig.hhs.gov/oei/reports/oei-06-09-00090.pdf*) this doesn't just produce anguish and tragedies for families and patients, it wastes over $4.4 billion Medicare dollars every year.
- According to CDC, at any one point in time 1 in 20 patients in U.S. hospitals will have a healthcare-associated infection *www.cdc.gov/about/advisory/pdf/ACD__Minutes__04__12__10__Final.pdf*.

These results are simply unacceptable because we know we can do better. And we must do better.

THE NATIONAL STRATEGY FOR QUALITY IMPROVEMENT IN HEALTH CARE

We need to accelerate our overall efforts to improve quality and focus specific attention on areas that need the greatest improvement.

In March, the U.S. Department of Health and Human Services released a roadmap that will guide us to making lasting, measurable improvements in the quality and safety of health care services for all Americans.

The National Strategy for Quality Improvement in Health Care, commonly referred to the "National Quality Strategy," was called for under the Affordable Care Act and is a significant step in creating national aims and priorities to guide efforts to improve the quality of health care in the United States.

The fundamental objective of the National Quality Strategy is to promote quality health care that is focused on the needs of patients, families, and communities. At the same time, the strategy is designed to move the system to work better for doctors and other health care providers—reducing their administrative burdens and helping them collaborate to improve care.

Before I provide you with a broad outline of the National Quality Strategy, it is important to note that it was developed based on evidence-based results of the latest research. Moreover, it was a collaborative, transparent process that included input from a wide range of stakeholders across the health care system, including Federal and State agencies, local communities, provider organizations, doctors and other health care professionals, patients, businesses, employers, and payers. In addition, I would like to note that we are working closely with the developers of the National Prevention Strategy.

This process of engagement will continue in 2011 and beyond. The National Quality Strategy is designed to be an evolving guide for the Nation as we continue to move forward with efforts to measure and improve health and health care quality. HHS will continue to work with health care providers and its other partners to create specific quantitative goals and measures for each of these priorities. While the

strategy articulates common goals, it is not intended to specify how those goals are achieved. Rather, the strategy explicitly recognizes the importance of encouraging and learning from local innovations in improving care.

At its core, the National Quality Strategy will pursue three broad aims. These aims will be used to guide and assess local, State, and national efforts to improve the quality of health care. The aims are:

- **Better Care:** Improve the overall quality by making health care more patient-centered, reliable, accessible, and safe.
- **Healthy People/Healthy Communities:** Improve the health of the U.S. population by supporting proven interventions to address behavioral, social and, environmental determinants of health in addition to delivering higher-quality care.
- **Affordable Care:** Reduce the cost of quality health care for individuals, families, employers, and government.

To advance these aims, we plan to focus initially on six priorities. These priorities are based on the latest research, input from a broad range of stakeholders, and examples from around the country. They have great potential for rapidly improving health outcomes and increasing the effectiveness of care for all populations.

The six priorities are:

- Making care safer by reducing harm caused in the delivery of care.
- Ensuring that each person and family are engaged as partners in their care.
- Promoting effective communication and coordination of care.
- Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
- Working with communities to promote wide use of best practices to enable healthy living.
- Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.

These priorities can only be achieved with the active engagement of health care professionals, patients, health care organizations, and many others in local communities across the country. Since different communities have different assets and needs, they will likely take different paths to achieving the six priorities. This Strategy will help to assure that these local efforts remain consistent with shared national aims and priorities.

Over time, our goal is to ensure that all patients receive the right care, at the right time, in the right setting, every time. The United States leads the world in discovering new approaches to prevent, diagnose, manage, and cure illness. Our institutions educate and train exceptional doctors, nurses, and other health care professionals. Yet Americans don't consistently receive a high level of care. Achieving optimal results every time requires an unyielding focus on eliminating patient harms from health care, reducing waste, and applying creativity and innovation to how care is delivered. The National Quality Strategy provides the framework to achieve this.

Another important component of the National Quality Strategy is that it aligns and coordinates the wide range of interests and efforts to move quality forward. Everyone involved in health care has an important role in promoting high quality care. It starts with health care providers, but employers, health plans, government, advocates, and many others also have an interest in improving the quality of care. Employers and other private purchasers, for example, have been leaders in demanding better quality by pushing provider organizations to achieve new levels of excellence.

The National Quality Strategy outlines a common path forward for all these groups and aims to make high quality, affordable care more available to patients everywhere.

The Strategy will be updated annually and will provide an ongoing opportunity to identify and learn from those providers and communities that are leading the way in delivering high quality, affordable care. It is our hope that this national strategy creates a new level of collaboration among all those involved with health care delivery who are seeking to improve health and health care for all Americans.

The Affordable Care Act calls on the National Quality Strategy to include HHS agency-specific plans, goals, benchmarks, and standardized quality metrics where available. By design, the Strategy does not include these elements in the first year, in an effort to allow them to be developed with additional collaboration and engagement of the participating agencies, along with private sector consultation.

We believe nation-wide support and subsequent impact is optimized when those needed to implement strategic plans participate fully in their development. We have begun implementation planning across HHS and have established a mechanism to obtain additional private sector input on specific goals, benchmarks, and quality metrics in 2011.

As implementation proceeds, we will monitor our progress in achieving the Strategy's three aims, along with other short- and long-term goals, and will refine the Strategy accordingly. Our goal is to keep this Strategy open and inclusive. One way in which we hope to achieve this goal is to provide updates annually.

The National Quality Strategy is available at *www.HealthCare.gov/center/reports*. Additional background information can be found at *www.ahrq.gov/workingforquality/*.

It is hoped that other public and private groups seeking to promote better health and health care delivery will also use the National Quality Strategy to hold themselves accountable. The Agency for Healthcare Research and Quality is tasked with supporting and coordinating the implementation planning and further development and updating of the Strategy.

THE PARTNERSHIP FOR PATIENTS: BETTER CARE, LOWER COSTS

As I noted during my introduction, we need to make sure that patients feel safe going to the hospital and other health care settings.

Ensuring the safety of patients is integral to the National Quality Strategy and a significant priority for this Administration.

Hospitals are showing that it is possible to deliver better care. We can, over time, eliminate many types of patient injury. The way to do that is to improve the care systems to allow doctors, nurses, and others to do what they desperately want to do: deliver safe care.

And what's clear is that no one can do this alone. America's doctors and nurses are already doing their best to take care of their patients. Simply telling them to solve this problem on their own would be both unfair and unproductive.

To that end, the Department is bringing together leaders of major hospitals, employers, health plans, physicians, nurses, patient advocates and others in a shared effort to make hospital care safer, more reliable, and less costly for all Americans.

Last month, we launched The Partnership for Patients—a landmark initiative with two basic but fundamental goals: Prevent patients from being harmed while in the hospital, and reduce the number of preventable rehospitalizations that occur after patients are discharged from the hospital.

The specific objectives under these goals are challenging, but we believe that they are achievable, and we have set a goal that by the end of 2013, we can reduce cases of preventable harm by 40 percent compared to 2010, and reduce re-hospitalizations within 30 days of discharge by 20 percent compared to 2010 by targeting preventable re-admissions.

The rewards are worth the challenges we may face.

Our estimates are that the process of reducing preventable hospital-acquired conditions by 40 percent will prevent 1.8 million injuries and avert 60,000 deaths of hospital inpatients over the next 3 years.

A 20 percent reduction in hospital re-admissions would result in eliminating 1.6 million unnecessary rehospitalizations. Reaching both these targets would save up to $35 billion across our health care system over 3 years, including up to $10 billion for Medicare. Over 10 years, the reduction in Medicare costs could be around $50 billion.

This initiative has been developed over the last several months under the leadership of HHS and its agencies, including my own (AHRQ), the Centers for Medicare & Medicaid Services (CMS), the Centers for Disease Control and Prevention, the Office of the Assistant Secretary for Health, the Food and Drug Administration, the Health Resources and Services Administration, the Administration on Aging, and the Indian Health Service, as well as with our colleagues at the Department of Veterans Affairs Veteran's Health Administration, and the Department of Defense's Military Health System.

CMS will commit up to $1 billion in new funding from the Affordable Care Act towards achieving the goals of the Partnership for Patients. Since the program was announced, the CMS Administrator, Dr. Donald Berwick, has been leading the program through CMS's Center for Medicare and Medicaid Innovation and has interacted with thousands of health care providers, hospital leaders, and others at in-person meetings and on national conference calls.

Under the initiative, we are providing hospitals and physicians with an unprecedented range of resources about what other health care providers have already done, and are doing, to improve patient safety. Already more than 1,250 hospitals across the country have pledged their support as well as clinicians and other care providers, health plans, unions, employers, and consumers and patient organizations. In the months to come, we expect that number will continue to grow.

The Partnership for Patients is pursuing a variety of activities to make significant improvements possible nationwide. Three of these activities are:

- One, we are developing, testing and making available specific and useful tools that are based on the best research to date on what works to prevent adverse events and rehospitalizations. These include a tool to help prevent pressure ulcers in hospitals (*http://www.ahrq.gov/research/ltc/pressureulcertoolkit/*) and another tool to avert dangerous blood clots that can occur after surgery. (*http://www.ahrq.gov/qual/vtguide/*).
- Two, we are continuing to support efforts to spread successful innovations that have worked well in one or a few hospitals to larger and more diverse settings. This will build off of HHS's previous experience in these areas:
  - One of the best examples is a project in Michigan to reduce central line-associated bloodstream infections in hospital intensive care units. This resulted in at least a 45 percent reduction in these dangerous infections in less than 18 months. These reductions have been sustained for more than 5 years. Currently, there is an ongoing, nationwide effort to implement the quality improvement program that yielded these results, and we are excited to report that 22 States are seeing similar reductions in these life-threatening infections.
  - Another very successful initiative involves the prevention of unnecessary readmissions through the Re-Engineered Discharge Project, known as Project RED. Patients who have a clear understanding of their after-hospital care instructions, including how to take their medicines and when to make followup appointments with their doctors, are 30 percent less likely to be readmitted or visit the emergency department than patients who lack this information.
- Three, we are identifying private sector initiatives that have led to useful tools or generated exemplary results. Some examples of promising private sector initiatives are the recent toolkit developed by the March of Dimes to help prevent harm to mothers or infants during the birth process and work published by Ascension Health on how that hospital system has greatly reduced obstetrical adverse events.

Public-private partnerships are critical to the success of the Partnership for Patients. The Federal Government is partnering with other public- and private-sector groups to encourage patients and families to participate in their care to improve transitions between hospitals and home and securing the active involvement of other organizations representing patients, families, and consumers, in efforts to prevent unnecessary rehospitalizations.

We know that the new Center for Medicare and Medicaid Innovation, AHRQ, and the other participating Federal agencies have a collaborative role to play with stakeholders to achieve these ends, and that a top-down solution is not the road to success.

Success will come as health care providers and hospital leaders adopt or develop, and then actually implement, methods that have been shown to be effective. As we recommend and implement new methods to improve patient safety and care transitions, the new Center for Medicare and Medicaid Innovation will test how to introduce national models known locally to improve care and reduce costs.

In the coming years, it is our intent that a greater portion of Medicare's hospital payments will be tied to quality results and to reward those that deliver the best care.

We know that the type of change we are talking about today will not come easily. But we also know it can be done if we work together. By assembling this Partnership for Patients and by committing to its ambitious goals, we are sending a clear message that we can no longer accept hospital care in which safety and efficiency is not the norm. We need a cultural change in our health care system to make safe, high quality care our top priority.

CONCLUSION

Mr. Chairman, thank you again for inviting me to discuss National efforts to improve the quality and safety of our Nation's health care system.

Through the National Quality Strategy and the Partnership for Patients, we are committed to working closely with our Departmental colleagues, States, and the private sector to ensure that all patients get high quality, safe, appropriate and affordable health care.

I appreciate this opportunity and look forward to answering any questions.

The CHAIRMAN. Thank you very much, Dr. Clancy.

I understand from your testimony that really the partnership is going out and doing at least a couple things here. You are stimulating certain hospitals and places to look at how they might and how they could address this infection problem, re-admission rates, and then you are also going out and finding those who have done those things effectively and taking those models and what, spreading them out around the country, informing others? For example, you mentioned one about Michigan with the central line infections reduced 45 percent, I think, within a year or so.

Dr. CLANCY. And they have sustained it after the project was over, which is really remarkable.

The CHAIRMAN. Well so then you tell me—what do you do with that information on how they did that? How does a hospital in Wyoming, or Maryland, or Iowa, or anyplace else, find out what steps they did to do that?

Dr. CLANCY. What we are doing based on the success of Michigan, and this is an AHRQ-sponsored project, although the partnership will build on that, is actually working with the American Hospital Association, they have a research technical assistance arm and the team at Hopkins, we couldn't possibly leave them out of it, and spreading this across the country to all 50 States and DC. So far we have gotten to 22. Somewhere between a quarter and a third of hospitals are voluntarily stepping up to participate, but they are seeing the same, dramatic reductions.

Essentially the intervention is relatively low tech, as Senator Mikulski noted. It is a checklist. But a checklist is easy, what you need is a commitment to teamwork behind it. The teams also collect a very limited amount of data and they get regular feedback about how they are doing. People start to connect the dots between their day jobs and the goal they are trying to achieve, and if you ever meet anyone from Michigan who is part of this, they are still kind of euphoric with the results that they were able to achieve.

The CHAIRMAN. I guess that is what I am wondering, because as you said in your statement that what they do may be OK for a hospital someplace, but maybe not for a small hospital someplace else. I just don't know how you take that example and scale it for different hospitals.

Let me just try one other thing here and that is, what are the important ways that the partnership will improve how doctors and hospitals treat patients as they move between settings of care? That is also a big problem. They come in, admissions, they do the analysis and then there is the preoperative, there is postoperative, there is acute care, then there is rehab care. There are all these different settings that they go in, and if I am not mistaken, that is where a lot of problems arise. So how do you address that issue of coordination between the different settings?

Dr. CLANCY. A major component of this partnership will be focusing on technical assistance to hospitals. And learning, like through the leaders you have here as part of the second panel, how do you do that. How do you do it and how can we apply it here?

The checklist that you just asked me about with the State of Michigan was designed so that it could be flexible enough to be adapted by very small, rural hospitals, but also used in the ICUs

at the University of Michigan, where there is probably, I don't know, a double digit number of them.

Same thing for re-admissions. The technical assistance provided to hospitals, physicians, and other healthcare professionals will build on and leverage investments that have already been made, so one specific set of tools that we have supported and tested at AHRQ relates to something called the Re-Engineered Discharge, or Project RED. Fairly low tech, very focused attention from a nurse and a pharmacist at the time of discharge, and very importantly, focused attention, phone calls to the patient a day or two afterwards to make sure they have got their medications aligned with the right ones, that they have gotten them filled, that they have got their followup appointments, and so forth.

Not rocket science, but it hadn't been happening. Achieving it is rocket science. And that initiative alone reduced re-admissions in the first 30 days by 30 percent. We know this is possible and the question is how do you inspire that shared energy and commitment and so forth?

The CHAIRMAN. My time has run out. Thanks, Dr. Clancy.

Senator Enzi.

Senator ENZI. Thank you, Mr. Chairman.

Dr. Clancy, I want to note first that I didn't get your testimony until 9 o'clock last night and that doesn't fit with the committee rules, and it doesn't give us time to prepare anything, and I would like your commitment that that won't happen in the future.

Dr. CLANCY. You have it.

Senator ENZI. Thank you. Now, from what I was able to get out of it in the short period of time, it is the Administration's claim that the Partnership for Patients program will save $10 billion for the Medicare program over the next 3 years. We communicated with the actuary of CMS and they confirmed that they haven't done an actual estimate of the budget impact on the program, that they were given a couple assumptions and had to come up with numbers based on those assumptions. The two assumptions were that over the next 3 years the program would reduce hospital acquired infections by 40 percent and decrease preventable compilations by 20 percent.

When assumptions are given to an actuary it kind of seems to me like that would be like assuming that I would grow to 6 feet four inches and be able to run the 40 in 4 seconds flat, and therefore be a starting linebacker for the Redskins next year. It's not going to happen and I'm pretty sure that these numbers aren't going to happen and when they are—especially when they are just based on a couple of assumptions like that.

I want to ask CBO and the CMS actuary to perform real estimates rather than just looking at limited assumptions that would drive an answer. They know the real world challenges the CMS faces and they have to take that into account when they are doing their estimates, and that way we can have a more honest debate about the merits of the program.

I am going to be writing a letter to the Chief Medicare Actuary, Richard Foster, later today asking that he provide me with a real estimate for how much money that program will actually save. And

I would ask you to work with Mr. Foster to provide that real cost estimate as soon as possible. Would that be possible?

Dr. CLANCY. Absolutely. In fact the information that your staff received actually was—some of the assumptions come out of published literature and my colleagues have already been working with Mr. Foster's colleagues as well. So we would be happy to continue that.

Senator ENZI. OK. Can you identify a single time that CMS has implemented a program that fundamentally changed hospitals, the way they provide care, and produced those kinds of savings?

Dr. CLANCY. CMS has implemented a number of demonstrations that have had impressive results. One is the Premier demonstration, led by a collaborative of hospitals, which is continuing to this day and taking on more and better efforts. And they have resulted—I would have to get back to you for the record, and would be happy to, in terms of how many hospitals are now involved. But the infrastructure and support that they have built for the hospitals is very, very impressive and, in fact, some senior folks at HHS actually kind of, occasionally give them assistance in terms of how does this fit with other things.

There was another very large demonstration, because there were a lot of important demonstrations that were part of the Medicare Modernization Act, that was about improving physician's care, a value-based purchasing approach, which also had very, very positive results, but we would be happy to send you a summary of that.

Senator ENZI. Thank you. Doesn't Medicare also pay Quality Improvement Organizations, QIOs, about $400 million a year to do many of the exact things this program is supposed to do? I know in the most recent statement of work, the QIOs were specifically directed to work with providers to reduce unnecessary re-admissions. Won't the new partnership program exactly duplicate the work the QIOs are already doing?

Dr. CLANCY. There has been quite a bit of discussion about that, about the need for very close coordination. I think you are right about the numbers and the investment and the quality improvement organizations, but I think it is also fair to say that in many States they can't get to all hospitals. And so the partnership will effectively expand and enhance what the QIOs scope of work has already indicated that they will be doing.

Senator ENZI. OK. Medicare is already said to begin reducing payments to hospitals to discourage hospital acquired infections. The new value-based purchasing program, pay for performance initiatives, and other delivery system changes are going to address most of the things that the Partnership Program is supposed to address. Isn't this program simply paying hospitals and outside groups up to $1 billion to do the things that they are already going to have to do to continue to get paid by Medicare?

Dr. CLANCY. No. What it is doing—I am sorry, I didn't mean to cut you off.

Senator ENZI. That is OK. Go ahead.

Dr. CLANCY. It is not paying them to do what they are already supposed to do. It is actually paying and supporting technical assistance to hospitals, to healthcare professionals, and also to patients and families, who can be a big part of this. My father, a

Medicare beneficiary, about a year ago had an avoidable hospitalization, so this would have been one of the bad outcomes that we count because of a miscommunication about the use of his blood thinner.

Senator ENZI. How will the program avoid paying for the things that the hospitals are already planning to do?

Dr. CLANCY. What they are hoping to do is to have to avoid paying for the harms and the consequences of the poor practices. In my father's case, if they had been more careful about communicating what the dose was. What happened was a nurse said to my stepmother, give him two. She meant milligrams. My stepmother thought she meant pills and in about 3 days he had to be admitted. We are talking a 3 or 4 day admission with lots and lots of tests. He did fine after that. But the point is this goes on sort of constantly across the country.

The Partnership will pay for technical assistance and support, but also will provide support to patients and families so that they can be more active partners, because many of them want to do that. And we know from all the studies we have supported that oftentimes individuals and their families pick up things that our other methods of looking for avoidable harm don't. They see what is going on, they are right there and so forth.

Senator ENZI. The example you give makes me think that we are going to be paying for things that hospitals would normally do to keep from being sued. Thank you.

The CHAIRMAN. Senator Mikulski.

Senator MIKULSKI. Thank you.

Dr. Clancy, I want to pick up on some of the main things we wanted to achieve in the legislation and address some of the excellent points raised by Senators Harkin and Enzi.

First of all, one of the big things we want to improve is health outcomes for patients. That is our large, bipartisan, public policy goal.

We find we spend a lot of money, but we rank 37th nationally in health outcomes, and that is not from Senator Barb, that is from our own business roundtable and other demographic and epidemiological studies. So then we said, "Well, what are we getting for our money?" What we saw is that we get a lot of intensive, acute care medicine, but a lot of bad things happen in a hospital, and a lot of magical things, and miracle things. What we identified in the hospital was that it wasn't maybe an impaired physician who made a mistake, that goes to the malpractice situation, but it was the systemic practices of hospitals around cleanliness, deployment of staff, and so on that resulted in medical errors. Am I correct in that?

Dr. CLANCY. Absolutely.

Senator MIKULSKI. So it wasn't the individual act where either an accident or malfeasance or whatever occurred. This isn't the malpractice issue. This is a systemic failure to identify with these practices.

Now if you come with me to Hopkins, in addition to the Pronovost Checklist, you see low-tech things like why do all the docs wear bow ties? You know why they wear bowties? This is one of the filthiest things you can bring into a patient's room.

[Laughter.]

Senator MIKULSKI. Not you, Tom.

The CHAIRMAN. I'm sure not.

Senator MIKULSKI. But you would flunk——

Dr. CLANCY. Absolutely.

Senator MIKULSKI [continuing]. Hospital quality because what does a doctor do, or a nurse? They're touching other people and other things and then they touch a patient, so therein lies the infection. If you have had ankle surgery, like I had, you worry about a bone infection, an incision infection, and other kinds of things. Am I correct?

Dr. CLANCY. Absolutely.

Senator MIKULSKI. So now, the whole idea is people were so intent on the delivery of high tech and high touch medicine that they weren't looking at the negative consequences to that. Now is that what you are trying to achieve?

Dr. CLANCY. Absolutely. There is Senator Harkin——

Senator MIKULSKI. To do practical things.

Dr. CLANCY. Yes, absolutely practical things and trying to not only identify those practical steps, but identify approaches that make those the defaults every time we do the right thing.

Senator MIKULSKI. Now, I want to come back to acute care, which is highly visible, highly regulated, highly monitored. I want to focus on when patients get ready to leave and when they go home. Our task force on quality during the debate was focused on hospital re-admission, the terrible problems of being admitted within 10 days and within 30 days.

We found in our hearings that there was a big gap. While you got high tech and high touch, you didn't get a lot of information when you were ready to leave about what you needed to do to comply with the medical regime. Once you left, you were in an unregulated atmosphere and often you were unmonitored for months at a time. Call me in a month or 6 weeks.

People would leave. They wouldn't know how to take their drugs. There was no checklist or sequencing on their drugs. The synergistic thing, like don't take a drug with orange juice kind of tip that you need with certain kinds of drugs. There was no discharge planning where you are going home to something where you could comply, and this is say post-cardiac surgery, post-ankle surgery.

Now what are you doing about that? Our whole idea was you need to have a plan. You needed to teach the plan to both the patient and another responsible adult, because patients don't always hear because we are scared when we go home. The monitoring once they went home, 72 hours, 1 week, 1 month, 1 year.

Then the whole idea was that we would make sure they were complying with their medical regime. And that was going to be assisted through health IT. Are you doing that?

Dr. CLANCY. Yes. We at AHRQ are supporting a number of projects on that and all of that information, where we have seen a local success at the particular institution who applied for funding and so forth, is already being shared with the Innovation Center so that they can take it and many, many others across the country, through their support for technical assistance, can use it to make it right.

One of the things that happens a lot, in addition to your brilliant description of all that doesn't go wrong. People are scared, oftentimes not enough time is devoted at the time of discharge. Sometimes health care professionals, besides being in a rush, are talking over the heads of patients and their families, who are scared and sometimes actually just want to get out of there, because they have kind of had enough of the hospital. And some people don't think a lot about this until they get home.

The project I mentioned to you, this Re-Engineered Discharge actually had that followup call, which seems to be very, very helpful to a lot of people, but those are the kinds of practical tools that will be very important.

Senator MIKULSKI. But isn't one of the failures to comply a lack of information and lack of follow through, and a lack of actual news that you could use, tips for the practical thing, and the failure—it is usually around the taking of their drugs and their pharmaceutical regime?

Dr. CLANCY. Absolutely. The information is shared, but it is not shared in a way people can hear it and use it.

Senator MIKULSKI. I know my time is up, but to my colleagues, Senator Harkin and Enzi, and others, if you live in Baltimore, you have Hopkins, you have University of Maryland. For my ankle, I was at Mercy, which is a university affiliated community hospital, lots of monitoring, lots of teaching, lots of stuff. Then, when you get out to suburban, ex-urban, and rural communities, that is often where they are not getting the latest and the greatest about how they could change their system to empower staff, and actually Dr. Pronovost told me this really improves clinical satisfaction.

Doctors are thrilled that a year later everybody has not only gotten better, but stayed better. It is the doctor-nurse satisfaction. But the big challenges are what happens in community-based, university distant hospitals in remote areas?

And I thought we would like to—my time is up. You can't go into that, but to me, it is not only in these high tech, high knowledge area—facilities, but then what happens as we go out?

But anyway, I am going to stop. Mr. Chairman, you have been indulgent. These materials are dense and wonky. I am a straight talker here and I am such an admirer of your work, but this is like what we are getting out of healthcare, generally. We have spent money. We have very clear policy goals that we are agreed upon, and yet this does not have the clarity and the vitality of just what you have told us here.

So we have to tell our story to garner public support in a very frugal atmosphere. This might be the last billion you get, unless we really show results. That is not a threat, it is an analysis.

At the same time, we need news that you could use for both patients and then those people in what I call distance learning situations. So please, help us help you help improve the health outcomes for people.

Dr. CLANCY. We will do that. Thank you.

The CHAIRMAN. Thank you very much, Senator Mikulski. That was refreshing.

Senator Bennet.

STATEMENT OF SENATOR BENNET

Senator BENNET. Thank you. Thank you, Mr. Chairman. I will try to continue in a nonwonky, news-you-can-use way here, because I agree also.

Dr. Clancy, I am very pleased to see you here. Throughout the healthcare debate we were very focused on the community-based care transitions program that is included in the Partnership for Patients. It reflects a lot of work that is already being done in Colorado. In fact, some of the people in Colorado helped draft that part of the healthcare bill because we recognized when the rate of Medicare patients being rehospitalized nationwide was 20 percent and our government was spending $17 billion a year on this, places like Grand Junction, CO were having re-admission rates of less than 2 percent at the same time, in their case, by using health care coaches to coordinate and to make sure that patients knew what they were doing when they were leaving the hospital.

The nurse from Denver Health, which provides $400 million a year in uncompensated care annually still manages to stay in the black and have some of the best outcomes in the country. We have seen it in our State and I think it could be fairly described in some ways as the end State you would want to see, high quality at a much lower cost through the reduction, among other things, in this case of re-admission rates.

I wonder if you wouldn't mind in the nonwonky way, talking a little bit about this savings question. Where do you expect to see the savings? How big might the savings be and what can we do, or what can you do to make sure we accelerate these savings as much as possible, because we are now in an environment where we know we have to change what we are doing if we are not going to bankrupt the Federal Government, the State and local government? Could you take that on?

Dr. CLANCY. Sure. We have made some fairly cautious estimates of savings. I think there is some uncertainty about how rapidly they will accrue, but I will also tell you, and my colleagues are right here behind me who labored over this long into many nights, and worked with Rick Foster's team, that the estimates are fairly cautious. They are based on the best published literature we have, so they have been tested very carefully. I don't think it is the limits of what is achievable, which I think is the good news.

To be able to prevent hospitalizations, the recent study in Health Affairs that talked about one in three hospital patients having an adverse event, almost one of the three is actually something that happened in outpatient care that could have been prevented, or was an avoidable harm that then required hospitalization, so that is where the savings will come from.

We would be happy to provide you more detail on sort of what those ranges might be, I don't have that with me today. But I know I have terrific colleagues who have a great deal of information on that.

Senator BENNET. I think that would be useful to the committee. I certainly would like to have that.

But there is a lot of discussion around there about projections, CBO projections, the CBO projections, is that—but what this really is going to come down to is the quality of the implementation.

Dr. CLANCY. Absolutely.

Senator BENNET. And I wonder if you can talk a little bit about what you're doing to try to make sure that the quality and the implementation is both high and accelerated.

Dr. CLANCY. Some of what we are doing is actually building tools that hospitals and other organizations can use themselves to do the tracking internally. The genius of the Keystone Project, in my view, was they made data collection light, very easy, but unlike many systems where it is really easy to take data in and suck in a lot of information, getting it back out is much, much harder, but theirs was designed to let people know how they were doing.

Now there was a little bit of, how would I say this, persuasion. In Michigan the Michigan Blue Cross plans, if hospitals forgot to send in their information, they would get a reminder letter from the Hospital Association and the Michigan Blues. I mean Dr. Pronovost could write to them, but, that probably wouldn't have meant a lot. Getting a letter from Blue Cross, got to the right people's desks and mysteriously information started flowing thereafter. So part of this Partnership for Patients is going to be enlisting that kind of local leadership similar to what Pronovost did in Michigan to make that happen.

But at the end of the day, when we submit to you all every year our national reports on quality, it is a little bit of a reaction that'd like, wow. I mean for many people, when I present this to different audiences, which says, "Gee, I thought we were doing better than that." Thank goodness it is not us. Right? I mean the data that really, really matters is what is going on in this hospital, this community, and so forth. That is part of what we are going to be helping institutions build, including taking very well-defined and reviewed ways of measuring common, avoidable harms, medication adverse events, for example, falls, and so forth, and we are now working with vendors to have those put into electronic records. It becomes very easy for hospitals to track them as they are happening and respond appropriately, rather than getting a report from the Inspector General a year, a year and a half later. I mean that is informative, but it is not nearly as informative as that timely feedback of how we are doing.

Senator BENNET. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Whitehouse.

STATEMENT OF SENATOR WHITEHOUSE

Senator WHITEHOUSE. Thank you, Chairman and thank you, Dr. Clancy for being here.

To followup a little bit on what Senator Mikulski and Senator Bennet have said, particularly with respect to the savings issue, and I understand that there is a difference between what you as a professional can take a look at, and using scientific principles and actuarial principles go out and predict, versus what you have said, you said that is not the upper limit, we could do considerably better than that.

My concern is that there are only two ways that we are going to get out of this healthcare cost problem that we have. One is to fix the system, which is a great way to get out of it because it lowers cost while improving both the quality, outcomes, and experience of care for American patients. And the second is if we fail at that, we are going to have to cut programs.

Dr. CLANCY. Exactly. Yes.

Senator WHITEHOUSE. We already have proposals to basically wipe out Medicare a decade from now.

We are really up against it in this. And I would strongly urge you to push up into the administration, to invite them to set a goal for you to achieve. Not something you have to approve, but a goal that would be directed into the system.

When President Kennedy decided that we needed to get into the space race, he did not give a forgettable speech about bending the curve of space exploration. He gave a memorable, and consequential speech about putting a man on the moon, and bringing him home safely, within a decade, and I think that is the kind of ramp up we need. There is enormous administration support of this. There is enormous legislative support for this. It is bipartisan. You have an incredible number of resources at your disposal.

But what is missing, to go back to what Senator Mikulski said, is that kind of capture the moment signal that goes out and says what our goal is. It can be a financial goal, and it can also be a goal that people relate to in their experience. Everybody who has been with a loved one who has been very sick has had to navigate for them and knows what a nightmare it is. This is not something that is not going to resonate with the American people. Everybody who has tried to get paid knows what a nightmare the insurance bureaucracy is. That is going to resonate with the American people.

There is a message here to be reached, and to go back to what Senator Mikulski said, we have to clarify this, make it real for people, but also raise the bar. We can no longer be talking about just what we can prove.

Dr. CLANCY. You are exactly right.

Senator WHITEHOUSE. It is time to be bold and have this Administration assert what its goal is here, and do that specifically. I would urge you to do that.

I am from Rhode Island, and we have been doing Pronovost's checklist. We have been doing the ICU thing for a while. We took it right out of Michigan. We were the first place to go statewide. We really get it. We are doing that. Obviously, re-entry is a big deal. What do you think, as you look forward, are the next big opportunities for this kind of quality improvement, cost saving, virtual cycle to emerge?

Dr. CLANCY. I think some of the next big opportunities are going to be looking at care coordination across multiple entities outside the hospital. More and more of Medicare is actually being done in ambulatory surgery and we have very little idea about the infection rates in those facilities yet on a systematic way, how carefully patients who are at some risk for bad outcomes are monitored and immediately connected to the hospital, and so forth. That strikes me as one likely target of opportunity.

Senator WHITEHOUSE. That sounds like a really good target. I think everybody who either has, or has a loved one who has multiple conditions is keenly aware of the sense of confusion and loneliness that they experience trying to sort through all the different specialists, all the different treatments, all the different prescriptions. It is not a great place to be and I think that is a good opportunity and I appreciate that you identified that.

A lot of people who deal in this world have a lot of really good ideas that may be the trigger for broader use and broader expansion. Is there a formal way that the Administration has for outreach, and for assessing those ideas so that a local doctor, or medical practice, or hospital has something? I mean if somebody falls in the hospital, you know to call 911. If somebody has a great idea in the hospital, who do they call?

Dr. CLANCY. We have a site at AHRQ that invites people to submit their innovations. What we are trying to do is hear from people who want to solve problems and who—they are not so interested in getting a research grant, or writing papers, and so forth, but boy, they would like to kind of share what worked, or in some cases what didn't, which is also really helpful information.

They actually have to submit a fairly straight forward form. I have been sharing some of this with my colleagues at HHS recently and I have to say they have been kind of blown away. When I described it I don't think I used the right words because when they actually saw the specific examples they were thrilled.

The Innovation Center has actually emulated and will be replicating something very, very similar, not to take over what we are doing, but just to build on that same kind of approach. And I know that they have lots and lots of plans for how they can reach out.

Personally, I think one of the greatest things we can do is to learn from many, many innovators across the country. You are going to be hearing from two fantastic institutions, but they are—that is not the end of the world.

Senator WHITEHOUSE. My time has expired——

Dr. CLANCY. Yes.

Senator WHITEHOUSE [continuing]. And I don't want to take the time from anybody behind me. But I do think—I am glad that there is a doorway. I think it might help to put a nice, bright light over that doorway so that everybody knows where it is. Thank you.

Dr. CLANCY. Thank you.

Senator FRANKEN. Thank you, Mr. Chairman. Thank you, Doctor, for your testimony.

Atul Gawande brought to light the success of checklists, which have been so successful in saving lives and resources, which I think is what we—I agree with Senator Whitehouse—this is the way we have to go. Gawande wrote an article in June 2009 that was very influential. It was in the New Yorker and it compared McAllen, TX to Mayo Clinic and some other clinics that used these sorts of protocols.

Let me tell you a story about Mayo, and I would like Senator Enzi to listen to this, because the average Mayo reimbursement for a Medicare patient is about one-half the reimbursement per patient of McAllen, TX. And if we are talking about saving money, this is

how to do it. And Mayo had better outcomes than McAllen, TX. And one of the things they do is use checklists.

I was talking to Dr. Noseworthy who is the CEO at Mayo, and he was telling me about ABC doing a little documentary—or doing a news story, actually—on Mayo, and they told him—he got cut out of the piece and the reason he got cut out of the piece is that there was a housekeeper there who was cleaning one of the rooms and the ABC producer was asking her, what are you doing? You're cleaning up the room. She said, "Well, I am saving lives." And she said, "The surgeons have this checklist, so I have this checklist too, and I am preventing infections, and I am saving lives."

And so Dr. Noseworthy was very proud of the fact that he had been cut out of the piece and the housekeeper was in it.

Dr. CLANCY. That is great.

Senator MIKULSKI. That is the whole thing.

Senator FRANKEN. That is the whole point here. Now, I want to ask how these QIOs will work with the Partnership for Patients, because I don't get the impression that there is just too much of this in the country that we are just—that this is being duplicative and we are just wasting money. I mean I think when that starts happening that will be good.

[Laughter.]

Tell me how the QIOs will be working with the Partnership for Patients.

Dr. CLANCY. I think I would probably do my colleagues the most service if I were to get back to you for the record and would be happy to do that.

Senator FRANKEN. OK.

Dr. CLANCY. One area where the Partnership will be working that I am pretty certain is not part of the QIOs scope of work is in working with patients and families so that they can play a more active role.

So Senator Mikulski was right, it is very scary at the time of discharge and so forth, but sometimes having someone with you who has got specific tools and knows what questions to ask can be very, very helpful. In general, that has not been part of the QIOs remit. But we would be happy to provide additional information about how these two dovetail.

Senator FRANKEN. A couple years ago, when I was running for the Senate, SEIU asked me to do a Walk in Our Shoes Day and I chose to be a nurse's assistant in a nursing home because my mom had gotten such great care in the last few years of her life and I wanted to do that.

I spent time in a home for people with severe MS. And I got to see the safe patient——

Dr. CLANCY. Right.

Senator FRANKEN [continuing]. Or the lifting equipment for patients, and I saw the nurse assistant who told me this equipment is saving nurses' backs, and not only that, but it is improving patients' safety. And so I am going to be reintroducing a safe patient lifting standards bill this year.

But the studies show that this pays for itself and more. So, what can you tell me about patient safety in terms of lifting them and having the equipment that makes it safe?

Dr. CLANCY. My general understanding is that health worker injuries, especially in nurses and nurses assistants, are definitely on the rise and in some cases are costing hospitals and other facilities a lot of money. I am not—my own direct knowledge of those lifts actually relates to the fact that my uncle has one at home; my aunt uses it for him with some help. But we would be happy to look into it more and see what we could find out.

Senator FRANKEN. OK, because I know it definitely is saving nurses and nurse assistants from injuries, but also as far as patient safety, it is important too. Thank you.

Dr. CLANCY. Yes.

Senator FRANKEN. Thank you, Mr. Chairman.

The CHAIRMAN. Dr. Clancy, thank you very much for being here today and thanks for your testimony. We'll leave the record open, of course, for additional questions from other Senators, or any who are here. Thank you very much, Dr. Clancy.

Dr. CLANCY. A pleasure. Thank you.

The CHAIRMAN. Now we will turn to our second panel.

To begin our second panel I am delighted to welcome Mr. Timothy Charles to Washington. Mr. Charles is president and CEO of Mercy Medical Center in Cedar Rapids, IA. Mr. Charles has significant healthcare experience. Before coming to Mercy he was CEO of a large community hospital in Texas. Earlier this spring Mercy was recognized by the Commonwealth Fund as a high performing healthcare organization because of its low re-admission rates for heart attack, heart failure, and pneumonia.

Mr. Charles, we thank you for your commitment, and for your being here today, and your testimony. And for purposes for introduction, I'll yield to Senator Bennet.

Senator BENNET. Thank you, Mr. Chairman and it really is an honor today to introduce a fellow Coloradan employed by a world-renowned healthcare system that I have had the privilege to work with for many years, Dr. Philip Mehler, who is the chief medical officer at Denver Health.

Dr. Mehler has been at Denver Health since completing his residency there in the early 1980s, and served as chief of internal medicine and associate medical director before reaching his current position. Dr. Mehler is also professor of medicine at the University of Colorado, Colorado Medical School and holds the Shana Glassman Endowed Chair of Medicine. He is a national expert on the medical treatment of eating disorders, such as anorexia nervosa, and bulimia, as well as issues related to healthcare quality and patient safety. He has been named one of the best doctors in America for the last 13 years and is currently serving a 4-year term on the Colorado State Board of Health.

I would like to welcome Dr. Mehler to Washington and look forward to hearing his testimony.

Mr. Chairman, I would like to thank you very much for inviting him to testify today. Thank you.

The CHAIRMAN. Very good. Thank you very much, Senator Bennet. And we welcome you both here.

Your statements will be made part of the record in their entirety. We will start with you, Mr. Charles, and if you could sum up your

testimony in several minutes. Then we will go to Dr. Mehler and then we will open it up for questions.

Mr. Charles, welcome.

STATEMENT OF TIMOTHY CHARLES, PRESIDENT AND CEO, MERCY CEDAR RAPIDS HOSPITAL, CEDAR RAPIDS, IA

Mr. CHARLES. Senator Harkin, Ranking Member Enzi, distinguished members of this committee, thank you very much on behalf of Mercy Medical Center for inviting us here.

One of my intentions this morning is to provide you a greater sense of confidence that there actually is extraordinary work underway already within community and community hospitals like ours that are already having a significant impact on the quality of healthcare.

Mercy was founded by the Sisters of Mercy in 1990 and for the past century has devoted itself to the healthcare ministry of caring for the sick, and improving the health of the communities we serve. And I would be remiss if I didn't say that we are as concerned about the vitality of our community as we are the health of our residents. And Cedar Rapids is still recovering from a devastating flood in 2008 and we continue to need your help.

The themes that thread the ways through the long and unbroken history are that we stand upon a ground of compassionate service, but we do that through state-of-the-art care, the science of medicine that is made possible by extremely talented providers, as well as the generosity of a community that ensures that we have the very latest and finest tools that are necessary to deliver that care.

Just 1 year after evacuating the hospital as a result of the flood and rebuilding it, we were invited by the Institute for Healthcare Improvement to present our path and results and to achieve its recognition by Don Berwick, along with our competing hospital and the medical community, as one of the leading providers of high quality and cost-effective care.

In a subsequent presentation, I shared that Mercy's accomplishments were the result of years of dedicated effort and discipline. This invitation led to two additional meetings in Washington with colleagues from a select group of communities chosen as they might offer innovative models to an industry desperately in need of reform.

The recent Commonwealth Fund case study released in March and April of this year recognizing Mercy as being in the top 3 percent of all facilities with respect to low re-admission rates is further testament to the relentless commitment to quality improvement.

Looking back, the pace of Mercy's commitment to quality improvement accelerated dramatically beginning in 2003 with our joining of the Institute for Healthcare Improvement, Dr. Don Berwick's initiative, in devoting ourselves to improving the health of our community, the patient experience, while also reducing costs.

Today we can also look to the Partnership for Patients intention to improve safety, and affordability and I am pleased to inform you that Mercy Medical Center is a member.

Our accomplishment, our communities accomplishment, has been the product of a dedicated medical institution functioning in a rath-

er unique community where sharing knowledge and initiatives that improve quality is common. The cross-cultivation has assured that all of those best practices are distributed to both hospitals, as well as to all providers and clinics.

Specifically, with respect to treatment, the principle in play is to get it right the first time, and to ensure that the treatment process is managed before, during, and after acute care. For example, 100 percent of Mercy's 85 providers—primary care physicians are utilizing electronic health record. Health coaches are now embedded within these practices to augment and enhance the physician's capacity to effectively interact with the respective patients to better manage chronic disease, such as diabetes, congestive heart failure, and to drive wellness and prevention initiatives.

Additionally, chronic disease management self-help courses are held throughout our community led by Mercy trainers, supported by a curriculum developed at Stanford.

Every Mercy employed physician is on an incentive program designed to improve compliance with evidence-based practice. In the event that acute care is required, a myriad of initiatives have been undertaken to ensure top quality. Adopting the technology of Lean, the facility is constantly challenging its performance and instituting initiatives that are evidenced-based, standardized, and hard wired.

We have deployed additional resources to the floors, such as pharmacists to work side-by-side with nurses. We have actually developed new services within our community. Palliative care, we opened a 12-bed hospice house.

We also have reached out to other organizations to bring to Mercy the evidence-based practices that do make a difference. For example, the American Heart Association's Get With the Guidelines Project, which encouraged us to reach beyond the walls of the hospital and to bring the local ambulance company into a conversation for how we can improve cardiac outcomes by beginning care in the field.

You may have noticed that a number of the initiatives are in some ways reflective of the nine focuses embedded within the Partnership for Patients Center for Innovation. With each successive year, blending technology and Lean process improvement, the hospital environment has become safer and more reliable. Process improvement coupled with advance technology from robotics in the pharmacy, computerized Smart IV pumps, bedside medication verification, and bar-coding vocera communication programs, the organization has grown in its sophistication.

The Commonwealth's Funds interests of re-admissions and its subsequent identification of leading institutions is an important indicator of overall success in managing the clinical process. This success, from our perspective, is the cumulative consequence of striving for and achieving many varied certifications and designations of expertise in specialty programs, and I could list a number of those. These designations are important for the recognition that specific requirements have been met, a high standard of care has been measured and verified, and that commitment to excellence has been sustained.

We have also committed ourselves to transparency, sharing data, benchmarking, and also research. We have been involved with Mayo Clinic for 25 years with cancer research. But once the patient departs from the hospital the work doesn't stop. Mercy's process improvement teams have been working on two specific initiatives, post discharge followup for home care, and also, particularly for high-risk patients, and the other is the use of home-based monitoring systems that provide data that alert clinical teams to patient's progress or deterioration and that has actually reduced the re-admission rate within that population by 47 percent.

It is true that Cedar Rapids is somewhat unique. We share one medical staff, one group of specialists. Four years ago Mercy brought to our community an innovative information technology product called PatientKeeper, which enabled us to share data. It is an overlay that allows us to communicate across all facilities. We are also now developing a patient portal, which will enable patients to engage in their care, which is particularly important, Senator Harkin, to your initiative with respect to health and wellness.

The future will bring significant investment in information technology, increased engagement across the spectrum of services, and finally the medical home will be embedded in every primary care practice, and that will, in effect, ensure that these initiatives are driven home and the results that we are committed to are achieved.

I think that there is an authentic sense of leadership and opportunity right now within the medical community, particularly within the hospital industry, and I am very excited. We are at a tremendous juncture, and I think the future is very encouraging and positive.

Thank you very much.

[The prepared statement of Mr. Charles follows:]

PREPARED STATEMENT OF TIMOTHY CHARLES

SUMMARY

The Commonwealth Fund recently recognized Mercy Medical Center, Cedar Rapids, IA as performing in the top 3 percent of the Nation's hospitals in maintaining a low re-admission rate. The committee will be provided an overview of the hospital's approach to quality improvement.

The hospital's commitment to achieving nationally recognized quality and safety has been in place for many years. Intensification of these efforts occurred in the past decade with Mercy's early adoption of the Institute for Healthcare Improvement's 100,000 lives and Triple Aim efforts. Instituting a myriad of improvement projects, coupled with LEAN, has resulted in improved performance in quality of care, reducing waste, reducing harm and dramatically reducing mortality. The success of these initiatives has been well-documented and recognized publicly, for example, by the Institute for Healthcare Improvement, the Delta Group, American Heart Association and The Joint Commission.

Looking to the future, the hospital will continue the program that led to improved management of the patient experience before and after acute care. With advances in the Medical Home Model offering improved chronic disease management, wellness and prevention services through health coaches, the system will strive to reduce the necessity for downstream emergency and acute services. Following hospitalization, expansion of the home-monitoring project now underway will continue to demonstrate the value of close observation of patients upon release from the hospital. In other words, the effectiveness of the acute care experience is inextricably tied to having an effective medical home and to resources made available while at home when recovering.

Much work must yet be accomplished. Even as the national agenda takes shape, we can be confident that the "Partnership for Patients" is already underway in communities like Cedar Rapids, and is making a demonstrable difference.

Senator Harkin, Ranking Member Enzi and members of this distinguished committee: On behalf of Mercy Medical Center, Cedar Rapids, IA, I am gratified to have been asked to present our journey toward achieving and sustaining nationally ranked quality and safety.

Mercy was founded by the Sisters of Mercy in 1900 and for the past century has been devoted to a healthcare ministry of caring for the sick and improving the health of the communities we serve. The themes that thread their way through this long and unbroken history are to stand upon the ground of compassionate service established by the Sisters; provide the state-of-the art and science of medicine made possible by extremely talented providers, and the generosity of community members that see to it the organization is equipped with the most advanced facilities and technology; and finally, to place the needs of our patients and the common good at the center of all undertakings.

In December 2009 we were invited by the Institute for Healthcare Improvement to present our path and results and to receive its recognition, along with our competitor hospital and the medical community, as one of the leading providers of high quality and cost-effective care. I shared that Mercy's accomplishment was the result of years of dedicated effort and discipline. This invitation led to two additional meetings in Washington, with colleagues from a select group of communities chosen as they might offer innovative models to an industry desperately in need of reform.

The recent Commonwealth Fund case study released in March of this year recognizing Mercy as being in the top 3 percent of all facilities with respect to low readmission rates is further testament to this relentless commitment to quality improvement.

The pace of change at Mercy accelerated dramatically in 2003 when we became an early adopter of Dr. Don Berwick's 100,000 lives campaign and later the IHI Triple Aim: improve the health of the community and the patient experience while reducing costs. Today we can also look to the "Partnership for Patients" intention to improve quality, safety and affordability. I am pleased to inform you that Mercy Medical Center is now a member.

From 2003 forward the facility has been in relentless pursuit of improved quality while driving down costs—in other words eliminating waste. This has come in three ways: decreasing unnecessary utilization of services; decreasing harm—through complications and/or unintended adverse outcomes; and, standardization of evidence-based practices. Long before the Accountable Care Act, Mercy was undertaking its own local initiatives.

This, in no small way, has been the product of dedicated medical institution functioning in a rather unique community where sharing knowledge and initiatives that improve quality is common, even amongst competitors. This cross-cultivation has all but assured the spread of best practices.

Specifically, with respect to treatment, the principle in play is "get it right the first time" and ensure that the treatment process is managed before, during and after acute admissions. For example, 100 percent of Mercy's 85 primary care providers are utilizing an electronic heath record. Health coaches are now embedded within these practices to augment and enhance the physicians' capacity to effectively interact with their respective patients to better manage chronic diseases such as diabetes, congestive heart failure, and to drive wellness and prevention initiatives.

Additionally, chronic disease management self-help courses are held throughout our community, led by Mercy trainers, supported by a curriculum developed at Stanford.

Every Mercy-employed primary care physician is now on an incentive program designed to improve compliance with evidence-based practices.

In the event that acute care is required, a myriad of initiatives have been undertaken to ensure top quality. Adopting the technology of LEAN, the facility is constantly challenging its performance and instituting initiatives that are evidence-based, standardized, and hard-wired. A few examples are, in 2003 rapids response teams were deployed, inpatient glycemic control protocols were instituted, clinical pharmacists were deployed to the floors to work side-by-side with bed-side nursing and physicians. In 2004, the palliative care consultative service was instituted and a 12-bed community-based hospice house was constructed. 2005 saw recognition of Mercy's cardiac care with the American Heart Associations "Get with the Guidelines" project. It has been nearly 18 months of consistent door to balloon times of

less than 90 minutes, the national benchmark: in fact our times are consistently less than 50 minutes. In 2006, a Venous Thromboembolism prophylaxis initiative was instituted across all surgical and stroke patients. In 2007, an organization-wide initiative tackled hand-hygiene, the simplest and most impactful means of reducing the spread of infections. Linn County became a pilot for the State of Iowa undertaking IPOST—the creation of an advanced directives document that would be universally honored by all providers and institutions. You may have noticed that several of these, if not all are consistent with the nine areas of focus embedded within the "Partnership with Patients" Center for Innovation.

With each successive year, blending technology and LEAN process improvement the hospital environment has become safer and more reliable. Process improvement coupled with advanced technology—from robotics in the pharmacy, computerized SMART IV pumps, bed-side medication verification and bar coding, vocera communications systems—the organization has grown in its sophistication.

The Commonwealth Fund's interest in re-admissions and its subsequent identification of leading institutions is an important leading indicator of overall success in managing the clinical process. This success, from our perspective is the cumulative consequence of striving for and achieving many varied certifications and designation of expertise in specialty programs. A few examples are, the American College of Surgeons Commission on Cancer, American College of Radiologists Breast Imaging Center of Excellence, The Joint Commissions disease specific certifications such as the Advanced Primary Stroke Center and the Heart Attack in Women Program, as well as recognized as a most-wired hospital. These designations are important for the recognition that specific requirements have been met, a high standard of care has been measured and verified, and the commitment to excellence has been sustained.

The data that drives these initiatives is a critical dimension to our success story. Mercy reports core measures as all others do today. We also participate in several other comparative data bases: the American College of Cardiology-National Cardiology Data Registry (ACC–NCDR), the National Database for Nursing Quality Indicators (NDNQI) Registry, and the National Healthcare Safety Network for Infections. We are also a participant in the Cedar Rapids Oncology Project supporting 25 years of cancer research in affiliation with Mayo Clinic, and finally the Delta Groups, whose trending of Mercy's risk-adjusted mortality demonstrated a drop from 1.27 in 2003, where 1.0 is the expected, to a current rate of .44 in the most recent report.

Once a patient departs the hospital, the work doesn't stop. Most recently, Mercy's process improvement teams have been working on two initiatives: post discharge followup by homecare nurses for all high-risk patients, and the use of home-based monitoring systems that provides data to providers alerting them to patient progress or deterioration thus enabling early effective counter measures that avoid re-hospitalization. These monitoring systems are not compensated under the current reimbursement system but by providing the right resources to provider and patient alike, results such as reduced re-admission rates can be accomplished.

Cedar Rapids may be a somewhat unique context for care that contributes to the overall performance. Today we have one dominant surgical specialty group serving both competing hospitals. We have one group of anesthesiologists and one group of radiologists. Cedar Rapids has a significant primary care community, supports a free clinic and federally qualified community health center. Access to care and services is relatively good. More importantly, access to clinical data is also remarkably good. Four years ago, Mercy brought to our community an innovative information technology product called Patientkeeper. It is an overlay that enables a doctor and or provider to acquire health information about a patient irrespective of the Cedar Rapids hospital in which they are being treated. This is important because physicians can now access information, through one device, even though that information may reside in a repository of different legacy systems of the two hospitals. Additionally, there is universal access to radiology images. Mercy has just entered into a partnership with a young IT development company, called GEONETRIC—located in Cedar Rapids, to develop a robust patient portal that will significantly increase the engagement of patients in their own health, wellness and care.

So what will the future bring? The first is significant investment in information technology as the most powerful tool in improving communication, data gathering, sharing, verifying outcomes and empowering the individual patient to take responsibility for their health.

In step with this will be increased engagement with providers across the spectrum of the health care continuum jointly developing and overseeing community standards of practice that improve outcomes, eliminate waste and harm.

Finally, the Medical Home Model will become embedded within every primary care practice. Reducing the terrific burden of our health care system requires us to address the drivers—the epidemic of chronic diseases for example. Effectively managing the burgeoning prevalence of chronic disease, coupled with, as Senator Harkin has long understood and appreciated, a commitment to wellness is the partnership between provider and persons in their care, and is the very essence of the medical home model.

There is much yet to do. I sense that there is authentic will and leadership to get the job done. While we sort out the national agenda, I am encouraged and I respectfully suggest you can be as well by the work long underway in States like Iowa, and communities like Cedar Rapids.

Thank you again for the opportunity to be with you today.

The CHAIRMAN. Thank you very much, Mr. Charles.

Dr. Mehler, welcome and please proceed.

STATEMENT OF PHILIP S. MEHLER, M.D., CHIEF MEDICAL OFFICER, DENVER HEALTH, DENVER, CO

Dr. MEHLER. Good morning. Thank you, Dr. Bennet, for your kind introduction.

Senator Harkin and members of this committee, I am honored to be here to testify and affirm Denver Health's commitment to patient safety and quality. Denver Health is an academic, integrated health care system and Colorado's principle safety net institution providing close to $400 million of care to people without insurance in 2010. We care for one in three people of Denver and 40 percent of Denver's children.

Denver Health's vertically integrated system, employed physician model, and our robust information technology provided a foundation upon which to build. The employed physician model promotes the alignment of goals across the enterprise and helps with the effectuation of patient quality and safety initiatives.

Seven years ago we began on a structured journey toward safety and quality, which included a comprehensive approach to patient care, establishing a department with primary responsibility for quality and safety, creating new programs to manage high risk clinical situations, and implementing systems to reduce variability in care.

The adoption of Toyota Production Systems, know as Lean, is an important piece of the comprehensive approach to care. Heretofore, the Lean concept of standard work had not traditionally been applied to the patient care arena. Denver Health recently opted to utilize Lean to address a common and potentially fatal hospital acquired condition, that of deep venous thrombosis, namely clots in the leg, which break loose and end up in the lungs. Because practice varied widely among different Denver Health provider specialty groups, and because one of the medicines used for preventing blot clots had become the most costly line item in our hospital's pharmacy budget, and most importantly, because our rate of blood clots was higher than other academic hospitals, we needed a new approach to beget sustainable quality improvement.

Our experience in this regard was recently published in the Joint Commission's Journal on Quality and Patient Safety. Using Lean, we achieve now one of the lower rates of this complication and reduced potential costs by millions of dollars, thus demonstrating the link between safer care and lower cost.

We also developed new approaches to other high risk, high opportunity clinical situations. Failure to risk rescue refers to a common and costly failure to identify hospitalized patients who are deteriorating and to intervene in a timely manner to prevent further deterioration. Differences in national mortality rates across hospitals have been shown largely to be due to failure to rescue issues.

Denver Health opted to institute a very unique rapid response system to identify such patients and proactively intervene. As a result, our mortality rates have been reduced, as have our cardiopulmonary arrest rates within the hospital.

Another Denver Health patient safety initiative was related to infectious disease care. Overuse and underuse of antibiotics are important barriers to quality improvement. Therefore, a formal antibiotic stewardship program was established to provide careful oversight and guidance to our clinical services.

This approach spawned new programs, including mandatory infectious disease consolations for certain serious infections, concurrent and timely feedback to a prescribing team when multiple antibiotics were being used for the same patient, and new rules-driven guidelines embedded within our computerized physician order entry, CPOE, system for common inpatient infections, such as pneumonia and cellulitis.

As a result, Denver Health's antibacterial drug use was the lowest amongst academic health centers reporting through the university health system consortia.

The aforementioned interventions have focused on hospitalized patients. Improving ambulatory care poses unique challenges. Despite the fact that there are currently 900 million outpatient visits annually in the United States, compared to only 35 million hospital discharges, there has been much less effort directed toward improving the care of outpatient.

However with the growing focus on medical home and health reform's emphasizes on accountable care organizations, it is crucial that high quality care also be delivered to our outpatients. Denver Health, with its multiple community clinic sites, has embarked on outpatient quality initiatives using its integrated health information technology system, robust data warehouse, and dynamic patient registries.

These registries trigger improved quality by providing aggregate, point of care performance data by specific clinic site and specific clinicians to make the data available for audit and feedback. The cancer registry's patient specific data serve as a visual prompt to the physician during the patient encounter reminding the physician to encourage the patient to comply with recommended breast, cervical, and rectal cancer screening.

Moreover, as a result of these registries, hypertension control is at 70 percent at Denver Health for our patients, and more than 50 percent of our diabetic patients have their cholesterol values at the target level. Both of these rates far exceed national averages.

Based on these structured approaches to quality and safety, Denver Health was ranked first of 112 academic medical centers with the lowest observed-to-expected mortality ratio in the 2010 University Health Systems Consortium's quality aggregate score. These structured approaches have made Denver Health's care safer. The

aforementioned low observed-to-expected mortality rate translates into more than 200 people walking out of Denver Health alive, who would have been expected to die.

While Denver Health is safer, we are not perfect. That is why Denver Health is committed to sustaining this effort and why I am honored to be standing here today. Thank you.

[The prepared statement of Dr. Mehler follows:]

PREPARED STATEMENT OF PHILIP S. MEHLER, M.D.

SUMMARY

America's health care systems have not achieved the desired level of quality and safety. This may be due, in part, to the lack of clear and robust approaches for institutions to follow. Denver Health, an integrated, public safety-net institution, developed a multifaceted, structured approach to quality and safety improvement that has produced positive outcomes. For example, in 2010 Denver Health ranked first of 112 U.S. academic medical centers in terms of actual mortality observed versus expected mortality rates. Given these results, we argue that regulatory bodies should refocus their oversight to consider an institution's overall structured approach to quality improvement and safety. The Denver Health experience demonstrates that care quality and patient safety can be advanced within America's health care institutions, even in organizations challenged by lack of resources and by socially disadvantaged patients. Denver Health demonstrates one pathway. Its integrated system of care, employed medical staff, and strong health information technology infrastructure has allowed the creation of a structured approach to patient safety and quality of care. Our approach includes the designation of a responsible person and department for quality and safety that focuses on high-risk clinical areas, uses standardized care based on rigorous scientific evidence, and is supported by transparent and robust real-time performance data that can be used for peer comparisons.

I am honored to be here to testify and affirm Denver Health's commitment to patient safety and quality. Denver Health is an academic, integrated health care system and Colorado's principle safety net institution providing $382 million of care to people without insurance in 2010. We care for one in three people in Denver and 40 percent of Denver's children. Like most American health care systems, we strongly espouse quality and safety, but clearly understand that aspiration alone will not produce excellent patient safety or quality.

Denver Health's vertically integrated system, employed physician model and our robust information technology provided a foundation upon which to build. The employed-physician model promotes the alignment of goals across the enterprise and helps with the effectuation of patient quality and safety initiatives. Seven years ago we began a structured approach to safety and quality which included creating a comprehensive approach to patient care, appointing a person and a department with primary responsibility for quality and safety, creating new programs to manage high risk clinical situations and implementing systems to reduce variability in care. The adoption of Toyota Production Systems, or Lean, is an important piece of the comprehensive approach to care. Heretofore, Lean tools and the Lean concept of standard work had not been traditionally applied to the patient care arena. Denver Health recently opted to utilize Lean to address a common and potentially fatal hospital acquired condition, that of deep venous thrombosis and pulmonary embolism—clots in the leg which break loose and end up in the lungs. Because practice varied widely among different Denver Health provider specialty groups, and because one of the medicines used for preventing blood clots had become the most costly line item in the hospital pharmacy budget, and most importantly, because our rate of blood clots was higher than other academic hospitals, we needed a new approach to beget sustainable quality improvement. Our experience in this regard was published in March 2011, as the lead article in The Joint Commission Journal on Quality and Patient Safety. Using Lean we achieved one of the lower rates of this complication and reduced potential costs by millions of dollars, thus demonstrating the link between safer care and lower cost. Each blood clot prevented avoids $25,000–$40,000 in medical costs. We expect to apply Lean methodology to other clinical situations wherein there is costly and dangerous inconsistent implementation of validated clinical guidelines.

Safety includes freedom from harm and from the risk of harm. Therefore we developed approaches to other high-risk—high opportunity clinical situations. "Failure to rescue" refers to a common and costly failure to identify hospitalized patients who are deteriorating and to intervene in a timely manner to prevent further deterioration. Differences in national mortality rates across hospitals have been shown to largely be due to "failure to rescue" issues. Denver Health opted to institute a unique rapid response system to identify such patients and intervene, which differed from the common rapid response team approaches being promoted by others. As a result, our mortality rates have been reduced as have our cardiopulmonary arrest rates.

Another Denver Health patient safety and quality initiative was related to infectious disease care. Overuse and underuse of antibiotics are important barriers to quality improvement. Almost 60 percent of Denver Health's inpatients were being treated with an antibiotic during their hospital stay. Therefore, a formal and robust antibiotic stewardship program was established to provide careful oversight and guidance to our clinical services. This approach spawned new programs, including mandatory infectious disease consultations for certain common and serious infections; concurrent and timely feedback to a prescribing team when multiple antibiotics were used for the same patient; new rules-driven guidelines embedded within our computerized physician order entry (CPOE) system for common inpatient infections such as pneumonia and cellulitis; and formal weekly infectious disease consultant rounds with intensive care unit teams. As a result, Denver Health's antibacterial drug use, in days of therapy per 1,000 patient days, was the lowest of 35 U.S. academic health centers reporting through the University HealthSystem Consortium. Moreover, proper treatment has increased, and adverse consequences from illness have decreased, for the highly prevalent Staphylococcus aureus bacteremia.

The aforementioned interventions have all focused on hospitalized patients. Improving ambulatory care poses unique challenges. Despite the fact that there are currently 900 million outpatient visits annually in the United States, compared to 35 million hospital discharges, there has been less effort directed toward improving the quality of outpatient care. However, with the growing focus on medical homes and health reform's emphasis on accountable care organizations, it is crucial that high-quality care is also delivered to outpatients. Denver Health, with its multiple community clinic sites, has embarked on outpatient quality initiatives using its integrated health information technology system, along with a robust data warehouse and dynamic patient registries. These registries trigger improved quality by providing aggregated point-of care (care delivered during an office visit) performance data by specific clinic site and specific clinician to make the data available for audit and feedback. The cancer registries' patient-specific data serve as a visual prompt to the physician during a patient encounter, reminding the physician to encourage the patient to comply with recommended breast, cervical, and rectal cancer screening. These registries are also tools for proactive management and outreach to patients between visits. As a result of our hypertension and diabetes registries, 70 percent of patients with hypertension have their blood pressure controlled, and more than 50 percent of diabetic patients have their low-density lipoprotein cholesterol, or "bad" cholesterol, values at the target level. Both of these rates far exceed national averages.

Based on these structured approaches to quality and safety, Denver Health was ranked first of 112 academic medical centers, with the lowest (0.55) observed-to-expected mortality ratio—the ratio of actual deaths at Denver Health compared to national death trends—in the 2010 University HealthSystem Consortiums Quality and Accountability Aggregate Score.

These structured approaches have made Denver Health's care safer. The aforementioned low observed to expected mortality among 112 academic health centers translates into more than 200 people walking out of our hospital alive who would have been expected to die. While we are safer, we are not perfect. That is why Denver Health is committed to sustaining this effort and why I am standing here today.

The CHAIRMAN. Thank you very much, both you, Dr. Mehler, and Mr. Charles, for your testimony, but more importantly, for the work that you are doing.

Mr. Charles, I'll start with you. As I said to you before we formally sat here for the hearing, I said the thing that was interesting I thought was how Mercy Hospital, the way you got different competitors to work together to advance patients' interests, and I asked you how you achieved that and I think we were interrupted at that

time, so I would like to ask you formally for the record. How did you get all the different competitors to work together?

Mr. CHARLES. That was the very question that Don Berwick was asking when he brought us together with that unique group of eight other communities. There are a couple of facets or dimensions to Cedar Rapids that may be unique. First of all, we have one common medical staff. In other words, the same medical staff practices in both hospitals.

What is interesting is that there is a tradition that has developed over the years which is when a best practice is developed in one institution, such as Mercy's Door-to-Balloon Time initiative, that best practice finds its way, migrates to the other institution. And there has been, I think, a silent recognition that while we may be competitors with respect to market share and wanting obviously the attention of the community and loyalty of our patients, the reality is when it comes to quality we are absolutely fighting the same fight.

We have a number of specific initiatives that we have actually worked cooperatively on, one of which was the development of a family practice residence program that was critical and that has been critical to the fact that we have a very, very well-staffed primary care community. We worked cooperatively on the development and evolution of the free clinic, which took care of the indigent. We worked cooperatively on the development and the execution of the community health center, a federally funded community health center. We have worked cooperatively on the training of professionals, radiologists, nurses. We found touch points that have enabled us, even in the face of being competitors, and we are competitors, to take on those projects together.

Another interesting project was a joint venture around MRIs as a way of containing the number of MRI units in our community and ensuring that we didn't have one on every corner. That has been very effective, it has been a very effective way to manage the evolution of technology in our community.

The CHAIRMAN. You mentioned something about how you monitor patients after they leave the hospital. You said, in your written testimony, I think you mentioned it also in your verbal testimony, about how you had some home-based systems to check up on patients and how they were doing, so you would have early interventions?

Mr. CHARLES. A critical initiative that we undertook just a couple of years ago was to send home, with high risk patients, a home monitoring system which enables the clinical team to check in with the patients and actually get a read on various clinical indicators. And the intention was to be able to identify patients as they are deteriorating, not only when they have gotten to the point where they are requiring a return visit to the emergency room. Highly effective way of managing the post-acute care process.

The CHAIRMAN. Dr. Mehler, what I am really impressed with your operation is that you are serving a very diverse group in Denver, very diverse group. And I would assume that the characteristics of that diverse population has certain challenges for delivering quality care.

Could you speak a little bit more, just openly, again about how does dealing with a broad spectrum of people you see—you cover about a third, I think, of the people in Denver and what, over half the children or more of the children, so you have various income groups, various language problems. Give us a little bit of a sense of how you deal with all that and still come out with the kind of quality end results that you have.

Dr. MEHLER. Denver Health is what is referred to as a safety net hospital and we are considered, I think, one of the premier ones in the country. We deal with a very ethnically diverse population; close to 50 percent of our patients do not have payer sources and that is how we were forced to give out close to $400 million of unreimbursed care last year. That does create challenges, as you have astutely pointed out.

There are simple challenges such as language. We have to spend a lot of money on interpreters. We have our own staff. We have a language line, which we use after hours. We have very unique dialects that are spoken by populations that have migrated to Denver and use our healthcare system which creates challenges.

But it also creates opportunities. I think part of the reason that we have been successful is that we have a very energized medical staff and we have a very energized employed staff of healthcare professionals. Our mission is sacred. These people don't have other options for care and so we are sort of the last provider that is going to take care of them. That energizes you every day.

I have worked at Denver Health for almost 30 years now, it has really been my only job, and when you come to work you really feel like you have a mission to be able to provide for exactly what you are talking about, this very diverse population of patients.

In addition to that, you have to be culturally sensitive because there are unique things that are challenges in that regard that emanate from different cultures that you are taking care. That is a challenge as well. So we have training in cultural sensitivity, which is very important, how to deliver that care to patients.

But in addition to that, we have a population of patients that come to Denver Health, because that is where they want to go because of the quality that we have there. And it is that ability to provide quality of care that attracts insured patients and VIPs to come to Denver Health and to get that reputation out there which then allows us to support the sacred mission of taking care of people without insurance.

It is a daily challenge. But, we made the commitment a number of years ago that we wanted to be the best healthcare system in the country, we wanted to certainly be the best safety net system in the country, because again, many of these patients don't have another option for their care. But it does require the confluence of many different efforts, from an employed medical staff, a devoted medical staff, devoted caregivers across very unique things to care for the populations that are embedded within safety net institutions.

The CHAIRMAN. Thank you both very much.

Senator Mikulski.

Senator MIKULSKI. First of all, I want to say to both of you, thank you. You are doing, in your local community, exactly what

we would like to do for the Nation. Your practices came out of our quality initiatives and our national health effort through the Patient Protection and Affordable Patient Care Act and then in very practical, I might add grassroots ways, you are doing it. So I just want to thank you for what you are doing for the people and patients in your community and the lessons learned.

Dr. Mehler, I would just make one comment to you, since I have a lot of questions about Mercy, because of a Mercy parallel in Baltimore. The fact that you have such high quality when you are known as, as you say, the safety net hospital. Often in communities they are called the charity hospitals and they often get a bad rap. They often get a stigma, "oh that is the charity hospital, that is where the poor go." Code name, poor people, poor care. But wow, this is stunning in what you are doing. And you and the people who work there for the people of Denver and Colorado should be really acknowledged for that.

Now, Mr. Charles, I know Cedar Rapids Mercy. I have been by it; I have never been in it. I didn't want to be in it when I went by it. I was there for a presidential campaign, not my own, another lady. Then I saw you under flood conditions on TV. Senator Harkin spoke eloquently about what you all were going through. This is a great set of accomplishments as well.

You obviously come with the spirit of Mercy, the charisma of Mercy. My question goes to the fact that you are not in the major medical center community, that is Iowa City. You are 45 minutes away, you are a community-based hospital, which means you are always foraging for revenue. My question is, when you wanted to embark upon this, how did you find Dr. Berwick?

In other words, it goes to my question with Dr. Clancy for the community-based, perhaps university affiliated, perhaps not university affiliated, rural or suburban hospitals. How did you get connected to what you wanted to learn to do this transformational effort?

Mr. CHARLES. A couple of things. One is that like Denver Health, we have an aspiration and our aspiration is, even though we are sitting in the Midwest, we are in a community that often I have to tell people how to get to, we want to be nationally recognized, which is to say that we are able to stand the test of our quality up against the very best anywhere. That has been our aspiration.

In 2003 we were introduced to Dr. Berwick. And at that time we became——

Senator MIKULSKI. How were you introduced to Dr. Berwick?

Mr. CHARLES. Just through literature. It was essentially looking at some of the publications.

Senator MIKULSKI. OK, now can I jump in?

Mr. CHARLES. Yes.

Senator MIKULSKI. In your quest to be the very best and to improve the methodologies of quality, was the government of any help to you? Was there government information or was it primarily through Berwick?

Mr. CHARLES. Actually, I would have to say that quite frankly it was not through governmental assistance that we worked at this. It was driven internally. We used our own internal resources. But one of the very important things that we also did, and you heard

the term Lean being used by Denver Health, we had a conversation with the chairman and CEO of Rockwell Collins and this was in 2004. And Clay Jones, whom you may know, actually sat me down and basically said, the one thing that absolutely keeps me up at night are my healthcare costs. It is the most unpredictable cost of my company and I am looking at the trajectory of that and my ability to have capital to fund the kind of work that we are here to do as a company will be jeopardized if we don't get this under control. So I am going to give you the one thing I know I can give you that would make a difference and that is Lean, which they have been devoted for years. Which is to get after your processes in such a way that you eliminate waste.

Senator MIKULSKI. Is it the Toyota model?

Mr. CHARLES. It is the Toyota model.

Senator MIKULSKI. OK, now let me come to Berwick. Then because you heard from Lean, Colorado learned from Lean, there was no 411 government number that you called. The government wasn't telling you to change, do better or whatever out of Medicare. So now we have Berwick, Guru Berwick. The Institute for Healthcare, really brings in private sector people with healthcare people. The Berwick initiative in addition to Lean, were your primary motivators? I have very limited time.

Mr. CHARLES. There were two very important dimensions that the Institute for Healthcare Improvement brought. One was the inspiration of Dr. Berwick. And quite frankly, in an industry that lacked that kind of direction and leadership, that was critically important. But the second was that he created communities where individuals could begin to share their best practices.

Senator MIKULSKI. OK. Now Mr. Chairman, I don't think we have confirmed Dr. Berwick.

The CHAIRMAN. I don't think so.

Senator MIKULSKI. I don't think we have confirmed Dr. Berwick, so I would like to just say this to the committee and I am sorry there are no Republicans here, I am sorry Senator Enzi, for I am sure very good reasons, isn't here. We just said to Dr. Clancy and then we just said, "Oh CMS never delivers," gee whiz, but we haven't confirmed Dr. Berwick. It is a little hard to have acting people running CMS, no matter how due diligent and so on. And, CMS is headquartered in my State.

I think we need to confirm Dr. Berwick and stop fooling around here because under his leadership, the most important healthcare finance officers in America work. If you are going to do this with Medicare or poke Medicaid in the eye and so on, a lot of the action is at CMS. We have someone nationally recognized in Dr. Berwick, agreed upon in the healthcare/hospital community, brings private sector practices to the healthcare delivery system and understands the medical healthcare delivery community. I think it is a national waste that we don't have this man confirmed.

I would like to urge, as one of our quality initiatives from the community, that we pound the table and even throw over a table or two—to get Berwick confirmed.

I could go on with my questions, but I think that this is absolutely essential. I could elaborate on it. I think it is a national disgrace that when we are talking about how to have a more frugal

government, how to get our budget costs under control, healthcare costs being No. 1, how we are about to devolve Medicare, we don't have the head of CMS.

So can we link arms on this and——

Senator HARKIN. I am with you.

Senator MIKULSKI [continuing]. Wear your bowtie.

[Laughter.]

I just think you have held a terrific hearing. We could talk all day about this.

I would like to work with the Harkin staff. What you have done is exactly what we hope to do through our quality initiatives. You both have done exactly what we want to do for the Nation. So again, may the force be with you and may it get behind us. Thank you very much.

Mr. CHARLES. Thank you, Senator.

The CHAIRMAN. Thank you, Senator Mikulski.

Senator Bennet.

Senator BENNET. Thank you, Mr. Chairman.

I just want to join Senator Mikulski in congratulating both of you for the work you have done and saying to people that in this political conversation about government take over of healthcare and death panels and all this other stuff, all people need to do is go to your two institutions to see where we need to head and what it looks like.

Mr. Chairman, I was—my introduction to this healthcare problem occurred about 10 years ago in Denver when I was sitting in the mayor's office. The mayor had just been elected, I was his chief of staff. I come from this hotshot business career to the city and I thought I was a genius.

And a woman shows up in the office bearing a bunch of slides. She turns out to be Dr. Patty Gabow who runs Denver Health. She showed me her revenue slide which was flat because of Medicare and Medicaid reimbursement. She showed me the slide of her costs which were going like this and she showed me the slide of the uncompensated care that Denver Health was delivering and how it was growing over time because people were losing health insurance. This was 10 years ago.

She said they were going to fix this problem. She knew that her revenue wasn't going to increase but she had all these costs that were rising. I have seen those slides year after year after year since then. I didn't believe a word she was saying to me. I thought it was impossible for Denver Health to be able to achieve what she was saying in terms of quality of care with the population they were serving and the complete lack of attention from the Federal Government about the problems we were facing and she was facing.

And they have done it. They have done far—not only have they made me a believer, but they have exceeded anybody's expectations about what could be done. What I would say to people that doubt they can condition higher quality and higher care is go to Denver Health and take a look at what they are doing.

What I would ask you, Dr. Mehler, because you have been there, you were there before, you have been there since, it is one thing to say, you know, we put in place this pay system, we put in place

the registry, we put in place the Lean system from Toyota. I wonder if you could share with the committee a little bit of how you built a culture that was able to do this and what the steps were like. I mean does somebody come in and say, "We are going to do this Toyota project" and you say, "We don't even know what that means." You are talking about an auto manufacturer.

How did it start and give us a sense of the iterative nature of the work and where you think it stands today. What is next? I won't talk anymore so you can have the rest of my time.

Dr. MEHLER. That is a great question. The answer is that it is really the confluence of many iterative steps to get you there. I think the first thing is the model at Denver Health. I think the model of this vertically integrated system is something we need to see more of in U.S. healthcare systems. Where you deliver the right evidence-based care to the right patient at the right place at the right time.

And we have all talked this morning about transitions of care which beget problems, whenever you hand off care, whether it is from a hospital to a clinic or from a clinic to a nursing home, wherever it is, you set yourself up for problems. When you have a vertically integrated system and when you have all components of that care model, those transitions are much more seamless. And so we invested a lot of money to make sure that we had a very tight vertically integrated system.

A second thing that we did is that we had to have the will and the desire and the sustainable will to put in place the proper structure processes and perhaps most importantly, behavioral cultural change. In the past, value, as being valuable to healthcare as a provider, I never thought about. I thought it was the next guy's problem and perhaps more embarrassingly, I thought it was professionally ignoble for me to worry about dollars. But we need to realize, as healthcare providers, I continue to see patients and I am an active clinician, that value in healthcare is our responsibility as providers.

And inculcating that cultural change within the medical staff and as they said at Cedar Rapids, having the employed medical staff, where you are able then to inculcate the changes that you have and insinuate them into practice helps you achieve success.

In addition to that, we decided that we needed to be transparent. That infection rates needed to be posted in units. That we needed to be able to go into a particular physician's profile and know what his hypertension control was. We needed to feedback, in a timely manner, data to physicians. And so transparency and concurrent with that a significant investment in health information technology.

Denver Health has invested close to $400 million over the last decade in HIT. Having a system which helps the physician, which helps the nurses, which helps the CNA take care of the patient is going to beget better care.

It is really the confluence of many things. But at the end of the day it is the will to change and then the sustainability and accountability that demands that that change is being effectuated. And then the respect for the patient population that we take care of, the vulnerable patients of Denver who don't have another

choice, that is what energizes our staff to say, despite the challenges that we face every day we have to achieve this care, we will achieve this care and we will continue to audit data and provide feedback to make sure that we are doing that.

The last thing would be is that when you get quality your reputation improves. We used to be the Denver Gun and Knife Club. I was born in Denver, you went there when you got shot, you didn't go there for anything else. Now we have the VIPs of Denver coming to Denver Health because our quality informs the public, through transparency, that when you come there you are going to get a good product.

Senator BENNET. Thank you Dr. Mehler. I hope you will say hello to Dr. Gabow for me.

Dr. MEHLER. I will.

Senator BENNET. Mr. Chairman, I can't thank you enough for including us.

The CHAIRMAN. Senator Bennet thank you for suggesting that we have Dr. Mehler here as a witness. I think this has added greatly to our deliberations and to our information that we are gathering here for the committee. I thank you for that, Senator Bennet.

Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Chairman and thank you gentlemen for being here.

When we started down this road in Rhode Island many years ago, we decided we would do the Pronovost Keystone principles in our intensive care units statewide. The discussion, the conversation that ensued was very instructive to me. Now the hospitals said, "Yes, we will do this, don't worry, we are totally behind this." We want to have our patients have this value. But, we want you to understand what this means on our financial side because when these things happen we get paid for treating them and that is in our top line. And when the infections, whether line infections or pulmonary conditions or whatever, don't take place that will reduce the reimbursement that we get.

Any other business that saved money through quality improvement or information technology applications would get the benefit of that. But in the case of hospitals the benefit goes to the payers more than it does to the hospitals.

There is a reimbursement paradox in terms of—I see both of your heads nodding—there is a reimbursement paradox that you experience or your fiscal people experience and there is a larger reimbursement paradox that the places that are doing the best things, like you, get less of a reward and the places who the Dartmouth Studies and others show are making a complete hash of this end up sucking up a lot more money. We reward, systemically, the worst performers and we punish the best performers.

What is the best way we in Congress could help reverse that dynamic? Knowing that you can't undercut the other places right away, we have to steer toward a standard where people who aren't meeting the standard that you are setting not only know it but feel it financially if we are going to drive behavior. Don't we?

Dr. Mehler.

Dr. MEHLER. I think you are exactly right. Currently the incentives are misaligned. You get paid for doing more and not nec-

essarily for providing better quality. I think the answer to your question is that we need to, in short order, effectuate these accountable care organizations. Where you get a bulk payment to take care of patients and then by definition if you do less and have better quality and less costs you are going to benefit at the end of the day.

We didn't used to like the term managed care organizations, but in reality, when you have a population of patients that you are given to take care of and you are responsible for their care and you are given X number of dollars to do it, it is going to exhort you to deliver the most efficient, high quality care to that physician population.

On the other hand, when you are paid for quantity, exactly as you say, you get that formula where the incentives are misaligned and if you do more you make more and if you do less and achieve better quality you get less. Not the ideal dream model.

I think the answer is we need to move ahead with these collaboratives. Denver Health is actively involved in one with Mayo Clinic, other systems across the country—Dartmouth—to try to achieve these collaboratives now, specifically in the vein of an accountable care organization, in the vein of getting a capitated payment to take care of patients and then using evidence-based medicine to drive decisionmaking, not to base it on gut feelings.

Voltaire once said that opinion has caused more trouble in this little world than earthquakes and plague. And it is true. We can't base it on gestalt, it has got to be based on evidence-based that if you do it through an ACO model you are going to effectuate exactly what you are getting toward and we agree fully, and support fully the questions that you just raised.

Senator WHITEHOUSE. Mr. Charles, do you agree with ACOs and would you suggest anything else?

Mr. CHARLES. I think that one of the important new directions that is being undertaken now is understanding that it is quality and it is efficiency. The reality is States like Iowa already rank very, very high in terms of being able to deliver very high quality care but doing so at very low costs. As this evolves——

Senator WHITEHOUSE. Sounds like, say Florida. Not to throw anybody under the bus in particular, but I think they are kind of a standout at the other end of the equation.

Mr. CHARLES. And the reference that was made to Atul Gawande's article about comparisons with McAllen, TX really brought that to light. I think that is vitally important.

I also see that directionally it is important to create incentives. Yes, it could be argued that all of this is work that should be done and quite frankly our systems had been doing this for many years, absent any indication that there would be financial incentives to get this accomplished. But, the reality is you are sending a very strong message and the message you are sending is, begin to uncouple yourself from that fee for service world, begin to recognize that more of your income should come from the outcomes you produce versus what you actually do.

I think you are moving in the right direction. We have a long way to go. This is going to be a complicated process.

Senator WHITEHOUSE. Mr. Chairman, I know I am over my time but we are down to just the two of us. May I ask one more question?

The CHAIRMAN. If you will permit me to just interject here. I was listening to your question. I asked my staff to get me this information. Section 3001 of the Affordable Care Act goes into effect in October 2012 and that is the penalties and bonuses for overall quality. That starts next year. Also starting in October 2012, there will be penalties for high re-admissions. And then later on, in October 2014, there will be penalties for high infection rates.

So beginning next year is the high re-admissions penalty. Next year is the bonuses, where you start getting bonuses for overall quality starts next year. And then 2 years after that is the penalty for high infection rates. What you were talking about, this adverse thing where the payers save the money but the hospitals don't, I think these three sections, I hope, will start addressing that point.

Senator WHITEHOUSE. Yes, I think they will. But they sort of carve islands out of the broader tide. And in those areas they reverse it but they don't force the system-wide change, at least at once. When you are dealing first with just the re-admissions and then just with the hospital acquired infections, then in other areas the same prevailing tide is pushing people gently and steadily and consistently in the direction of doing more instead of better.

I was trying to see if they—I think the Accountable Care Organization is the way to have it be a system change rather than just in specific targeted areas. But what we did in the Affordable Care bill to focus in those areas where we know there is room for real improvement, I think was really important and as Mr. Charles said, it helps to send a signal so that people know that a change is coming and they don't necessarily have to wait for it.

The CHAIRMAN. I understand. If we could couple both the medical home model and the Accountable Care Organization, it seems to me then we get at the system problem——

Senator WHITEHOUSE. Yes, we do.

The CHAIRMAN [continuing]. That you mentioned.

Senator WHITEHOUSE. I think we do.

The CHAIRMAN. I thank you for letting me interject that.

Go ahead.

Senator WHITEHOUSE. Of course. I just wanted to ask one other thing, since you guys are both way out in front in this area, information technology is obviously a very significant issue, we have made a very significant investment. Could you tell me to what extent information technology has facilitated or made possible the changes that you have made to date? And going forward, what is the next big step that we need to drive through in our development of a robust national health information infrastructure to sort of make the next game-changer, if you will?

Mr. CHARLES. I can say unequivocally that information technology is the enabler. Back in the early 1990s when there were discussions of healthcare reform, there were many of us that were involved in trying to re-design the system. What became readily apparent was the inability to share information and data from silo to silo to silo, prevented us from accomplishing any of the intentions of that process. Today information technology has evolved tremen-

dously. It is at the core. Four hundred million dollars, we expect that we will be investing $50 million over the next 5 years.

I would say that an example of the next important initiative is to pave the way for electronic communication between practitioners and their patients. Patients want this. They want to be able to link with their doctors electronically. They are using it more frequently. Right now within our system, quite frankly, there isn't a way to capture and appreciate the value of that interaction in the form of revenue to physicians. Somewhere in this process we have got to address that concern.

Senator WHITEHOUSE. Anything to add, Dr. Mehler?

Dr. MEHLER. I would fully agree with what was said. It is clear that HIT has helped effectuate major advancements for Denver Health. We really have all of the latest and greatest in that regard, with CPOE, MAC, computerized medical record is in its last stages right now. And there is no doubt that it has made care safer, more efficient.

I think one thing we haven't talked about this morning that is worth really briefly talking about is the fact that all the changes in resident work hours is really creating a bit of a crisis in healthcare because at the end of the day the residents deliver a lot of the care but there are all these work hour restrictions. We have to make sure that we are training the best generation to provide care for the next century and they are very adept with information technology. We have to give them the tools that are going to help make their jobs more efficient in the more limited time that they have in the hospital.

The last point I would make is that the reality is, there is a huge problem with clinical inertia in the United States right now. Why is it that only 48 percent of Americans have their blood pressure controlled when all that is involved is to take a blood pressure pill? Well, there is this entity of clinical inertia, we just don't take the next step.

But the way you achieve better care is by having rules embedded within order sets. The reason that we were able to achieve such great results with our deep venous thrombosis initiative is because when you type into the computer this medicine, it forces you to do x, y or z to achieve those cares so there is no doubt. Registries having data, it comes back to the physician that says only 30 percent of your patients or Mrs. Jones hasn't had her pneumovax the last time, when you see her, because it is imbedded and it is populated into the encounter when you see that patient. No doubt, it is unequivocal that that has made care more efficient and higher quality.

Senator WHITEHOUSE. I thank the both of you and I very much thank the distinguished chairman for allowing me the extra time. Thank you, sir.

The CHAIRMAN. Thank you, Senator Whitehouse, for your great leadership on the development of the Affordable Care Act. I am delighted that your absence from this committee was short. I am glad you are back. Thank you very much, Senator Whitehouse.

Mr. Charles and Dr. Mehler, again, thank you very much for being here, but again I would join with others in saying thank you, moreover for what you have done, the example you have set. As Dr.

Clancy said, this is what we need to do—go out and find people like you, what you are doing, take that in and then start getting it out to people around the country so they can say, "Well we can follow their example." So thanks for setting great examples, both of you, very, very much.

I request to keep the record open for 10 days for Senators to submit statements and questions for the record.

The CHAIRMAN. And with that, the committee will stand adjourned.

[Additional material follows.]

ADDITIONAL MATERIAL

PREPARED STATEMENT OF THE AMERICAN COLLEGE OF SURGEONS

Improving quality of care leads to fewer complications, and that translates into better outcomes and greater access for patients, as well as lower costs. More than a decade ago that the Institute of Medicine published its report that found 100,000 preventable deaths occurred in U.S. hospitals each year. Many programs to measure and improve quality have come since that report, but the rate of adverse events remains alarmingly high.

To be successful, hospitals and providers need proven tools and methods that measurably improve patient care. The American College of Surgeons has such proven tools of care and we believe that we can improve quality. In fact, in surgery, we *are* improving quality today.

Improving quality isn't just a matter of instituting quality programs and requirements. The quality programs that have failed to reduce errors in hospitals have almost invariably lacked data strong enough to measure and improve quality. They are also too limited to effectively improve care, because they focus on requiring hospitals to implement a handful of best practices—also called process measures—when in fact there are many more things hospitals should be doing to measurably improve patient outcomes.

The American College of Surgeons has been able to significantly improve surgical quality by using strong data and the right approach. For more than 100 years, the American College of Surgeons has led national and international initiatives to improve quality in hospitals overall, as well as the more specific fields of trauma, bariatric surgery, cancer and surgical quality. These initiatives have been shown to significantly reduce complications and save lives, and that translates into lower costs, better outcomes and greater access.

Complex, multi-disciplinary care—such as surgical care—requires a commitment to continuous quality improvement. Surgeons have a long history of developing standards and holding themselves accountable to those standards. Four years after ACS was founded in 1913, leaders such as pioneering surgeon Earnest Codman of Boston helped to form the Hospital Standardization Program 1917, which became The Joint Commission in 1951. Dr. Codman believed it was important to track patient "end results" and use those results to measure care, learn how to improve care and set standards based on what was learned.

Since then, ACS has helped establish a number of key quality programs, including the Commission on Cancer in 1922, the Committee on Trauma in 1950, the American College of Surgeons Oncology in 1998, the National Surgical Quality Improvement Program or "ACS NSQIP" in 2004, and the National Accreditation Program for Breast Centers and Bariatric Surgery Center Network Accreditation Program, both in 2005.

Based on the results of our own quality programs, we have learned that there are four key principles required to measurably improve the quality of care and increase value. We believe quality programs must have these four elements to make the significant improvements we need to make for our patients.

Our first principle is to **set the standards** that are individualized by the patient's condition and backed by research. The core for any quality improvement program is to establish, follow and continuously reassess and improve best practices. Standards must be set based on scientific evidence so that surgeons and other care providers can choose the right care at the right time given the patient's condition. It could be as fundamental as ensuring that surgeons and nurses wash their hands before an operation; as urgent as assessing and triaging a critical injured patient in the field; or as complex as guiding a cancer patient through treatment and rehabilitation. In each case, it is important to establish and follow best practices as it pertains to the individual patient and, through constant reassessment, to keep getting better.

Our second principle is to **build the right infrastructure**. To provide the highest quality of care, surgical facilities must have in place appropriate and adequate structures, such as staffing, specialists and equipment. For example, in emergency care, we know hospitals need to have the proper level of staffing, equipment such as CT scanners, and infection prevention measures such as disinfectants and soap dispensers in the right quantity and in the right locations in their emergency departments. If the appropriate structures are not in place, the risk for the patient increases.

Our Nation's trauma system is an example of the importance of having the right infrastructure in place. We established the Committee on Trauma (COT) to improve all phases of care for the injured patient, thereby providing the optimal care in the

most cost-effective manner. We have learned that for those who suffer a severe injury, access to optimal trauma care during the first "golden" hour can save their life, restore function and prevent disability. That means we need trauma centers with the appropriate resources, such as the appropriate staffing and equipment, and a trauma system that can get the patient as quickly and safely as possible to the trauma center most appropriate to handle their injury.

ACS has established trauma center standards for staffing levels and expertise, processes, and facilities and equipment needed to treat seriously injured patients. Trauma centers are independently verified by the COT and receive a Level I, II, III or IV designation, based on the care they are able to provide. Ideally, the most challenging cases are immediately rushed to the nearest Level I or Level II center. There is good scientific reason for this: Level I trauma centers have been scientifically shown to reduce death by 25 percent.

Our third principle is to **use the right data**—data from medical charts, backed by research, that tracks outcomes after the patient leaves the hospital and are part of a continuously updated database.

We all want to improve the quality of care we provide to our patients, but hospitals cannot improve quality if they cannot measure quality, and they cannot measure quality without valid, robust data. We have learned that surgeons and hospitals need data strong enough to yield a complete and accurate understanding of the quality of surgical care compared with that provided by similar hospitals for similar patients. We need information about patients before, during and after their hospital visit in order to assess the risks of their condition, the processes of care and the outcome of that care. We've learned that the patients' clinical charts—not insurance claims—are the best source for this type of data.

These are the principles of data collection upon which the ACS National Surgical Quality Improvement Program (ACS NSQIP) is built. The NSQIP program, which has its history in the Veterans Health Administration, is now in more than 400 private sector hospitals around the country. We use a trained clinical staff member to collect clinical, 30-day outcomes data for randomly selected cases. Data is risk adjusted and nationally benchmarked, so that hospitals can compare their results to hospitals of all types, in all regions of the country. The data is fed back to participating sites through a variety of reports, and guidelines, case studies and collaborative meetings help hospitals learn from their data and implement steps to improve care.

ACS NSQIP hospitals have also seen significant improvements in care; a 2009 *Annals of Surgery* study found 82 percent of participating hospitals decreased complications and 66 percent decreased mortality rates. Each participating hospital prevented, on average, from 250 to 500 complications a year.[1] Given that major surgical complications have been shown in a University of Michigan study to generate more than $11,000 in extra costs on average, such a reduction in complications would not only improve outcomes and save lives, but greatly reduce costs.

The fourth principle is **to verify**. Hospitals and providers must allow an external authority to periodically verify that the right processes and facilities are in place, that outcomes are being measured and benchmarked, and that hospitals and providers are doing something in response to what they find out.

The best quality programs have long required that the processes, structures and outcomes of care are verified by an outside body, and ACS programs are no exception. ACS has a number of accreditation programs that, among other things, offer a verification of standards that help ensure that care is performed at the highest levels. Whether it is a trauma center maintaining its verification as Level I status or a hospital's cancer center maintaining its accreditation from the Commission on Cancer, ACS has long stressed the importance of review by outside authorities. Undoubtedly, increased emphasis on such external audits will accompany efforts to tie pay to performance and to rank the quality of care provided.

Together, these principles form a continuous loop of practice-based learning and improvement in which we identify areas for improvement, engage in learning, apply new knowledge and skills to our practice and then check for improvement.[2] In this way, surgeons and hospitals become learning organisms that consistently improve their quality—and, we hope, inspire other medical disciplines to do so as well.

The passage of the health care reform act is intensifying the focus on quality by requiring hospitals and providers to be increasingly accountable for improving care through measurement, public reporting and pay-for-performance programs.

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[1] Hall BL, et al. "Does Surgical Quality Improve in the American College of Surgeons National Surgical Quality Improvement Program." Ann Surg. 2009; 250:363–76.

[2] Sachdeva AK, Blair PG. Educating surgery resident in patient safety. Surgical Clinics of North America 84 (2004) 1669–98.

ACS welcomes the focus on quality but we must ensure that the right steps are taken. By taking an outcomes-based approach that relies on setting and following standards, establishing the right infrastructure, collecting the right data and outside verification, ACS has shown that complications and costs can be reduced and care and outcomes improved on a continual basis.

Take ACS NSQIP. If we expanded this quality improvement program to every hospital in the country, we could prevent 2.25 million complications, save 100,000 lives and $25 billion. *Every year, year after year.*

But that's if ACS NSQIP can be expanded to the Nation's more than 4,000 hospitals that perform surgery. ACS NSQIP, which is in about 400 hospitals, has a long ways to go to achieve that goal. We need to get ACS quality programs into more hospitals, more clinics and more communities. While this is a straightforward task, it is not one that ACS can accomplish on its own. ACS NSQIP's success will require collaboration from the broader surgical community; other providers, including hospitals; healthcare policy experts, government officials and elected representatives.

The current focus on quality offers an extraordinary opportunity to expand the reach of ACS's quality programs and put the country's healthcare system on a path to continuous quality improvement.

The evidence is strong: We *can* improve quality, prevent complications and reduce costs. That's good for providers and payers, government officials and taxpayers. Most of all, that's good for patients.

PREPARED STATEMENT OF THE NATIONAL TRANSITIONS OF CARE COALITION (NTOCC)

Chairman Harkin and Ranking Member Enzi and other members of the committee, we thank you for holding this important hearing and appreciate the opportunity to submit a statement for the record. The National Transitions of Care Coalition (NTOCC) believes strongly that as policymakers and health care providers strive to improve health care quality and patient safety, it is essential that the improvement of care transitions in our health care system is made a top priority.

The National Transitions of Care Coalition (NTOCC) is a group of 32 leading health care experts and stakeholders dedicated to providing solutions that improve the quality of health care through stronger collaboration between providers, patients, and caregivers. The organization was formed in 2006 to raise awareness about the importance of transitions in improving health care quality, reducing medication errors and enhancing clinical outcomes among health care professionals, government leaders, patients and family caregivers. NTOCC members have created a number of useful tools and resources that all participants in health care can use to improve patient safety and decrease errors associated with poor transitions.

In the U.S. health and long-term care system, patients—particularly the elderly and individuals with chronic illnesses—experience transitions in their care, meaning that they leave one care setting (i.e. hospital, nursing facility, assisted living facility, primary care physician care, home health care, or specialist care), and move to another. The U.S. health care system often fails to meet the needs of patients during transitions because care is rushed and responsibility is fragmented, with little communication across care settings and multiple providers.

Some key facts about transitions of care:

• Among hospitalized patients 65 or older, 21 percent are discharged to a long term care or other institution.[1]

• Approximately 25 percent of Medicare skilled nursing facility (SNF) residents are readmitted to the hospital.[2]

• Individuals with chronic conditions—a number expected to reach 125 million in the United States by 2020—may see up to 16 physicians in 1 year.[3]

• Between 41.9 and 70 percent of Medicare patients admitted to the hospital for care in 2003 received services from an average of 10 or more physicians during their stay.[4]

A recent survey by the Agency for Healthcare Research and Quality (AHRQ) on Patient Safety Culture, found that 42 percent of the hospitals surveyed reported that "things fall between the cracks when transferring patients from one unit to an-

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[1] "Hospitalization in the United States, 2002," *Agency for Healthcare Research and Quality,* 2002. *<http://www.ahrq.gov/data/hcup/factbk6/factbk6a.htm#howdischarged>.*

[2] Medicare Payment Advisory Commission, "*Report to the Congress: Increasing the Value of Medicare*," June 2006.

[3] Bodenheimer, T, "Coordinating Care—a perilous journey through the health system," *New England Journal of Medicine*, 2008; 358(10):1064–71.

[4] Fisher, E, "Performance, Measurement: Achieving Accountability for Quality and Costs," *Quality Forum Annual Conference on Health Policy*, October 2006.

other" and "problems often occur in the exchange of information across hospital units."[5] Poor communication during transitions from one care setting to another can lead to confusion about the patient's condition and appropriate care, duplicative tests, inconsistent patient monitoring, medication errors, delays in diagnosis and lack of follow through on referrals. These failures create serious patient safety, quality of care, and health outcome concerns. Furthermore, they place significant financial burdens on patients and the U.S. health care system as a whole. All of these variables contribute to patient and family caregivers' dissatisfaction with the U.S. health care system.

We need only to look at the high prevalence of hospital re-admissions and medical errors to see the inadequacies of care transitions and their adverse economic implications to the U.S. health care system:

- Medication errors harm an estimated 1.5 million people each year in the United States, costing the Nation at least $3.5 billion annually.[6] An estimated 66 percent of medication errors occur during transitions: upon admission, transfer or discharge of a patient.[7]
- One study found that, on discharge from the hospital, 30 percent of patients have at least one medication discrepancy.[8]
- According to another study, one in five U.S. patients discharged to their home from the hospital experienced an adverse event within 3 weeks of discharge. Sixty percent were medication related and could have been avoided.[9]
- On average, 19.6 percent of Medicare fee-for-service beneficiaries who have been discharged from the hospital were re-admitted within 30 days and 34 percent were re-admitted within 90 days.[10] According to MEDPAC, hospital re-admissions within 30 days accounted for $15 billion of Medicare spending.[11]

NTOCC's health care experts have developed a number of tools and resources for professionals and policymakers to ensure safe transitions of care. These include resources to: help patients and family caregivers navigate transitions; assist health care professionals in implementing and evaluating effective transitions of care plans; and aid policymakers in assessing and measuring transitions of care outcomes.

There are a number of models of care that have demonstrated that effective and coordinated care transitions lead to improvements in overall health care quality, and results in savings to patients and the health care system. Each model brings a set of interventions, tools, and resources that help to address the issues of communication, transfer of patient information, accountability for sending and receiving information and improving quality of care. To assist medical providers, NTOCC recently released a *Compendium of Evidence-Based Care Transition Interventions* which provides a user-friendly centralized resource for providers to have access to all currently available evidence-based interventions and tools. A companion resource to the compendium "Care Transition Bundle: Seven Essential Intervention Categories" is also available which highlights the essential care transition interventions identified from a cross-walk of the various models of care. We believe this resource will be useful as this committee and the Administration look to improve health care quality and safety.

In recognition of the value of proper transitions in leading to improved care and the social and economic costs of poor transitions, the Patient Protection and Affordable Care Act included several initiatives specifically designed to address gaps in care that occur between and among health care settings. NTOCC is particularly supportive of the Health and Human Services (HHS) recently announced "Partnership for Patients" which identifies effective care transitions as a key component of improving the quality, safety, and affordability of health care for all Americans. As

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[5] "Hospital Survey on Patient Safety Culture: 2007 Comparative Database Report," *Agency for Healthcare Research and Quality*, 2007,<*http://www.ahrq.gov/qual/hospsurveydb/*>.

[6] Harris, G, "Report Finds a Heavy Toll from Medication Errors," *New York Times*, 21 July 2006 .

[7] Santell, J., "Catching Medication Errors at Admission, Transfer and Discharge," *United States Pharmacopia*.

[8] Kwan, Y, Fernandes, OA, Nagge, JJ, et al., "Pharmacist medication assessments in a surgical preadmission clinic," *Arch Intern Med*, 2007;167:1034–40.

[9] Forester, AJ, Murff, HJ, Peterson, JF, et al., "The incidence and severity of adverse events affecting patients after discharge from the hospital," *Annals of Internal Medicine*, 2003:138(3):161–7.

[10] Jencks, Stephen F, Williams, Mark V, Coleman, Eric A, "Rehospitilizations among Patients in the Medicare Fee for Service Program," *New England Journal of Medicine*, 2 Apr 2009;360:1418–28.

[11] Medicare Payment Advisory Commission, "Report to Congress: Promoting Greater Efficiency in Medicare," June 2007, Chapter 5.

part of this initiative, CMS announced the Community-based Care Transitions Program (CCTP) which was created by the Affordable Care Act and will provide $500 million to eligible community-based organizations and acute care hospitals for care transition services for high-risk Medicare beneficiaries. NTOCC strongly supports the CCTP program and urges Congress to continue to support this important program.

Finally, as new policies and programs emerge that seek to improve care transitions, NTOCC believes the following considerations should be taken into account to achieve successful transitions of care:

- Improve communication during transitions between providers, patients and family caregivers;
- Implement electronic health records that include standardized medication reconciliation elements;
- Expand the role of pharmacists in transitions of care in respect to medication reconciliation;
- Establish points of accountability for sending and receiving care, particularly for hospitalists, SNFists, primary care physicians and specialists;
- Increase the use of case management and professional care coordination;
- Implement payment systems that align incentives; and
- Develop performance measures to encourage better transitions of care.

The National Transitions of Care Coalition appreciates the opportunity to submit a statement for the record and looks forward to working with the committee to health care quality and patient safety.

PREPARED STATEMENT OF THE ROUNDTABLE ON CRITICAL CARE POLICY, SUBMITTED BY STEPHANIE SILVERMAN, EXECUTIVE DIRECTOR

Chairman Harkin and Ranking Member Enzi and other members of the committee, we thank you for holding this important hearing and appreciate the opportunity to submit a statement for the record.

Established in 2009, the Roundtable on Critical Care Policy is a nonprofit organization that provides a forum for leaders in critical care and public health to advance a common Federal policy agenda designed to improve the quality, delivery and efficiency of critical care in the United States. The Roundtable brings together a broad cross-section of stakeholders, including the Nation's leading medical professionals with specialized training in critical care, patient groups, academia, public health advocacy and industry.

The Roundtable is supportive of the Department of Health and Human Services' (HHS) *Partnership for Patients*, the public-private partnership that aims to make hospital care safer, more reliable, and less costly. As the committee moves forward with overseeing the implementation of programs authorized by the Patient Protection and Affordable Care Act (PPACA) and develops additional policies to improve health quality and safety, the Roundtable encourages the committee to ensure that policies to improve the care for the critically ill and injured are made a priority.

Each year, over 5 million Americans are admitted into traditional, surgical, pediatric, or neo-natal intensive care units (ICUs).[1] The ICU is one of the most costly areas in the hospital, representing 13 percent of all hospital costs, with the total costs of critical care services in the United States exceeding $80 billion annually.[2] Additionally, almost one-fourth of total Medicare spending occurs in the last year of life, when critical care is most often utilized. Providers of critical care require specialized training, the care delivered in the ICU is technology-intensive, treatment is unusually complex due to what may be a patient's system—or multiple system—challenges or failures, and outcomes have life or death consequences. Approximately 540,000 individuals die each year after admission to the ICU, and almost 20 percent of all deaths in the United States occur during a hospitalization that involves care in the ICU.[3]

The Roundtable appreciates Agency for Health Research and Quality (AHRQ) Director, Dr. Carolyn Clancy highlighting the Keystone Project, an ICU quality improvement initiative funded by AHRQ to reduce central line-associated bloodstream infections in hospital ICUs. As Dr. Clancy testified, this quality improvement pro-

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[1] Society of Critical Care Medicine. Critical care statistics in the United States. *http://www.sccm.org/AboutSCCM/Public%20Relations/Pages/Statistics.aspx*.

[2] Halpern NA, Pastores SM. "Critical Care Medicine in the United States 2000–05: An analysis of bed number, occupancy rates, payer mix and costs," *Critical Care Medicine* 37 no. 1 (2010).

[3] Angus DC, Barnato AE, Linde-Zwirble WT, et al. "Use of Intensive care at the end of life in the United States: an epidemiologic study," *Critical Care Medicine* 32 (2004).

gram resulted in at least a 45 percent reduction in these infections in less than 18 months, decreasing an elderly person's likelihood of dying while hospitalized by 24 percent.[4]

Recently, *Health Affairs* highlighted findings by Drs. Peter Pronovost and Eric Vohr showing that an estimated 85,000 errors occur each day in ICUs, and, "of these, 24,650—which include bloodstream infections associated with central line catheters, pneumonia associated with ventilators, and infections at surgical sites—are potentially life-threatening and costly complications of care. They are also preventable."[5] The critical care community is committed to improving the quality of care delivered in the ICU, and the Roundtable urges the Administration and Congress to continue to support initiatives like the Keystone Project that test and disseminate quality improvement programs for care of the critically ill and injured, particularly as they target funding and program support for reducing preventable medical errors and hospital-acquired infections.

Another challenge facing critical care medicine is the notable absence of research on the availability, appropriateness and effectiveness of a wide array of medical treatments and modalities for the critically ill or injured. At present, many of the current, high-cost treatments delivered in the ICU lack comparative effectiveness data. And in 2009 when the Institute of Medicine released its mandated report recommending 100 topics to be given priority for comparative effectiveness research funding, few of these topics related to critical care. Moreover, current Federal research efforts are partitioned and scattered across the government and throughout that National Institutes of Health's (NIH) 27 institutes, making it difficult to coordinate existing research and identify gaps.

Lastly, multiple studies have documented that the demands on the critical care workforce—including doctors, nurses and respiratory therapists, among others—are outpacing the supply of qualified critical care practitioners. A 2006 study by the Health Resources & Services Administration found that the current demand for intensivists—physicians with special training in critical care—will continue to exceed the available supply due largely to the growing elderly population, as individuals over the age of 65 consume a large percentage of critical care services.[6] Studies by patient safety organizations such as the Leapfrog Group have found that intensivist-led ICU teams have been "shown to reduce the risk of patients dying in the ICU by 40 percent."[7] The current and projected critical care workforce shortages pose significant patient safety concerns.

While PPACA included several initiatives to expand the health care workforce, they were largely focused on expanding primary care. However, a solution cannot be reached solely by adding to the workforce—we must also find ways to improve the efficiency of the existing workforce. That is why the Roundtable enthusiastically supports a provision included in PPACA that prioritizes within the newly-established Centers for Medicare and Medicaid Innovation the testing of models that make use of electronic monitoring—specifically by intensivists and critical care specialists—to improve inpatient care.

A failure to address the challenges facing the critical care delivery system could jeopardize patient safety and do little to bend the cost curve on rising health care costs. The Roundtable strongly believes that as the Administration moves forward with the *Partnership for Patients* and other delivery reforms authorized by PPACA, initiatives aimed to improve the care for the critically ill and injured should be made a priority.

Additionally, as the committee seeks to address these issues in the future, we hope that you will consider some of the provisions included in the "Critical Care Assessment and Improvement Act of 2011" (H.R. 971) that was introduced by Representatives Tammy Baldwin (D–WI) and Erik Paulsen (R–MN). The legislation would authorize a much-needed assessment of the current state of the critical care delivery system, including its capacity, capabilities, and economic impact. The bill would also establish a Critical Care Coordinating Council within NIH to coordinate the collection and analysis of information on current critical care research, identify

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[4] Agency for Health Care Research and Quality, "Landmark Initiative to Reduce Healthcare—Associated Infections Cuts Death Among Medicare Patients in Michigan Intensive Care Units," January 31, 2011 *www.ahrq.gov/news/press/pr2011.*

[5] Moore, Juliane, "Dispatches From the Front Line of the Patient Safety Movement (Book Review)." *Health Affairs*, December 2010 Vol. 29 No. 12.

[6] Health Resources and Services Administration Report to Congress: The Critical Care Workforce: A Study of the Supply and Demand for Critical Care Physicians. Requested by: Senate Report 108–81. Available at: *http://bhpr.hrsa.gov/healthworkforce/reports/criticalcare/default.htm*. Accessed November 2010.

[7] The Leapfrog Group. Fact Sheet. *http://www.leapfroggroup.org/about_us/leapfrog-factsheet*.

gaps in such research, and strengthen partnerships. And lastly, the bill would authorize a number of initiatives to bolster Federal disaster preparedness efforts to care for the critically ill or injured.

The Roundtable on Critical Care Policy appreciates the opportunity to submit a statement for the record, and looks forward to working with the committee to improve health care quality and patient safety.

[Whereupon, at 11:55 a.m., the hearing was adjourned.]

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