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TESTIMONY OF

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Summary of Remarks by
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- Pennsylvania began collecting data on hospital-acquired infections in January 2004. Almost every state has the capability to establish a reporting system based on Pennsylvania's model.

- The Pennsylvania Health Care Cost Containment Council (PHC4) has found that the patient safety and financial impact of hospital-acquired infections is larger than originally reported. During the first nine months of 2005, Pennsylvania hospitals confirmed more hospital-acquired infections than for all 12 months of 2004.

- Hospital-acquired infections are deadly. You are over five times more likely to die during a hospital admission in which you acquire an infection than if you don't.

- The costs of hospital-acquired infections are staggering. Payment data suggests that, on average for commercially-insured patients, there was a $52,600 difference between hospital admissions in which the patient acquired a hospital-acquired infection and one in which the patient did not.

- Hospital-acquired infections are not inevitable, nor should they be expected. Simple and effective methods, such as hand washing, using gloves, and properly sterilizing equipment, can dramatically reduce and/or eliminate hospital-acquired infections.

- We cannot improve what we do not measure. Requiring the collection and publicly reporting of data are two steps in measuring the extent of the problem and identifying solutions.

- Don't let the perfect be the enemy of the good. When it comes to data collection and reporting on hospital-acquired infections, the data need not be perfect. In fact, we ultimately need to find ways to get infection control professionals out of the data collection business and into the business of finding and preventing hospital-acquired infections.

Mr. Chairman and Members of the Committee:

Good afternoon, my name is Marc P. Volavka, and I am the Executive Director of the Pennsylvania Health Care Cost Containment Council. I am honored to have the opportunity to address this Committee today and to talk about the importance of publicly reporting hospital-acquired infections.

Last summer, the Pennsylvania Health Care Cost Containment Council – often referred to by its acronym, PHC4 – issued a landmark report on hospital-acquired infections. Thus, Pennsylvania became the first state in the nation to put some hard figures around the incredible burden of these infections.

While we expected to receive some attention, we were, quite frankly, astounded by the firestorm of debate that tiny, four-page report caused. Since our first report, PHC4 has issued two additional briefs on hospital-acquired infections, one of which has just been released today.

Data Collection and Reporting in Pennsylvania

I thought I should begin by giving some background on Pennsylvania's data collection process. I also think it is important to set the record straight about what PHC4 did and did not report in our groundbreaking Research Brief. First and foremost, despite what some have said, we did not use "billing data" to identify hospital-acquired infections. The infections listed in our reports were identified, submitted and confirmed by Pennsylvania hospitals.

To define hospital-acquired infection, PHC4 adopted, with minor clarifications, the Centers for Disease Control and Prevention (CDC) definition: *an infection is a localized or*

systemic condition that 1) results from adverse reaction to the presence of an infectious agent(s) or its toxin(s) and 2) was not present or incubating at the time of admission to the hospital. Essentially, what this means is: you didn't come in with it, and you got it in the hospital. Frankly, this is not a difficult concept to grasp.

PHC4 also adopted the CDC's 13 major site categories that define the hospital-acquired infection location, and expanded the list of 13 to include a category for multiple infections and to differentiate device related and non-device related infections. We then redefined a two-character data field (Field 21d) on the *Pennsylvania Uniform Claims and Billing Form*, which is submitted along with administrative and billing data for each inpatient hospital admission. Hospital personnel enter one of a defined set of codes into this field when the relevant hospital-acquired infection is present. Almost every state in the nation is already positioned to use the uniform billing form in a similar manner.

In Pennsylvania, data collection began in January 2004, and hospitals were required to submit data to PHC4 on four types of hospital-acquired infections: surgical site, urinary tract, pneumonia, and bloodstream infections. The data collection requirements were gradually expanded over a period of several quarters, and as of January 2006, Pennsylvania hospitals are now required to submit data on all hospital-acquired infections.

So what did PHC4's first report on hospital-acquired infections reveal? In 2004, Pennsylvania hospitals confirmed 11,668 hospital-acquired infections. The hospital admissions in which these infections occurred were associated with an *additional* 1,510 deaths, 205,000 *extra* days of hospitalization and $2 billion in *additional* hospital charges. While these numbers are certainly shocking, what is chilling is that the figures were underreported – just the tip of the iceberg. PHC4's most recent report released today, which looks at only the first three quarters of

2005, underscores that the problem of hospital-acquired infections is larger and more costly than originally estimated. It also highlights the difficulty in getting a standard, consistent and understandable form and format to identify and collect this information.

During the first nine months of 2005, Pennsylvania hospitals confirmed and reported 14,526 hospital-acquired infections. If the reporting trend continues for fourth quarter, we will approach 20,000 identified HAI's for all of 2005.

13,711 of the 14,526 are identical to the 4 categories that were confirmed and reported in 2004 -- the 11,668 figure. The hospital admissions in which these 13,711 infections occurred were associated with an additional 1,456 deaths, 227,000 extra hospital days and $2.3 billion in additional hospital charges.

Hospital-acquired Infections Are Deadly

While I think all of this background is important, there are really six key points I would like to make today based on Pennsylvania's public reporting experience. The first, and perhaps most compelling, is that *hospital-acquired infections are deadly*.

As I previously mentioned, based on only nine months of 2005 data from Pennsylvania hospitals, the hospitalizations with hospital-acquired infections were associated with 1,456 additional deaths. Extrapolated nationally, this translates to almost 40,000 *additional* deaths annually. That's approximately 110 people per day dying nationally. If 110 people were dying daily from the Bird Flu, I think we'd be calling that an epidemic.

While I hate to throw out too many numbers because real people and real lives are at the heart of this issue, a comparison of the mortality rates of patients with and without hospital-acquired infections is also eye-opening. Of the 13,711 Pennsylvania patients with a hospital-

acquired infection in first nine months of 2005, 13 percent died, compared to 2.4 percent of patients who did not contract such an infection. What that means is, you are over five times MORE likely to die during a hospitalization if you get an infection, than if you don't. Those aren't good odds.

The Costs of Hospital-acquired Infections Are Staggering

Just as hospital-acquired infections are a major patient safety issue, their financial implications are staggering, which brings me to my second point. The cost of hospital-acquired infections continues to place an already financially shaky health care system at greater jeopardy. Through insurance premiums and tax dollars, Americans are spending exorbitant amounts of money on these infections, which are, in almost all instances, preventable.

Again, based on only nine months of 2005 data, the hospital admissions in which these infections occurred were associated with $2.3 billion in additional hospital charges, just in Pennsylvania. Extrapolated nationally, the total would reach $46 billion.

As our research brief issued today identifies, Pennsylvania has also become the first state in the nation to put hard numbers around actual payments. Pennsylvania received actual payment data from third-party commercial insurers and matched it to the hospitalizations for 2004 in which the reported hospital-acquired infections occurred. In 2004, the average payment – that is the actual payment, not charge – for a hospitalization with a hospital-acquired infection was $60,678. The average payment for a hospitalization without a hospital-acquired infection was $8,078.

This data shows that, on average, there was a $52,600 payment difference between hospital admissions with and without a hospital-acquired infection. As a result, we estimate

additional insurance payments to Pennsylvania hospitals from the private sector, Medicare and Medicaid at $613.7 million for the 11,668 hospital-acquired infection cases in 2004. To extrapolate for all of 2005, with the assumption that payments did not change at all (not a solid assumption) we estimate that payments made to hospitals for patients who get a hospital-acquired infection will be over $1.2 billion in Pennsylvania alone. That would be $24 billion in payments nationally. And, this is only the hospital portion of the payment. It does not include the additional physician payments, or the ongoing care many of those patients need, if they are the lucky ones who survive the infection.

This is a major concern to Pennsylvania businesses and labor unions that pay insurance premiums through the commercial market and to public sector programs. It also contradicts those who say there is no low-hanging fruit in health-care cost savings left to find.

Now, as compelling as these numbers are for the health care purchasers paying the tab, there is an equally compelling business case for hospitals to prevent hospital-acquired infections. While hospitals get paid, on average, seven times more for a patient that acquires an infection, work done by Dr. Richard Shannon, under the auspices of the Pittsburgh Regional Healthcare Initiative, and continued by others, indicates that the cost of treating these infections far exceeds the extra payment received. I believe Dr. Shannon will testify more on this point, so I will leave that to him.

Hospital-acquired Infections Are Not Inevitable

With patients, payers and providers all losing out, it is hard to understand why there is still so much debate surrounding my third point. *Hospital-acquired infections are not inevitable,*

nor should they be expected. These infections can be prevented. For years, there has been this so-called myth of inevitability – that is, hospital-acquired infections are the inevitable byproducts of providing hospital-based care. This myth has persisted despite the fact that simple and effective methods, such as hand washing, using gloves and properly sterilizing equipment, can dramatically reduce the incidence of hospital-acquired infections.

Too often, blaming "inevitability", instead of identifying and correcting poor processes of care, is the norm. Hospital-acquired infections should not be about placing blame or fault, with either patients or providers. However, they also should not be about masking their existence behind statistical methodologies like "infections/1000 line days" and language like "nosocomial" that only the "experts" could understand or explain. When talking about hospitals, if you didn't come in with it, and you got it in the hospital, to me, that's a hospital-acquired infection.

The new moniker; "healthcare-associated infections", concerns me, because it has the potential to blur and soften the implications of, and the solutions for, infections acquired while hospitalized.

We Cannot Improve What We Do Not Measure

Of course, finding solutions is ultimately what we should be about. That is why PHC4 has a history of public reporting. We cannot bring attention to problems that see no light. *We cannot improve what we do not measure.*

Obviously, not all of the feedback PHC4 has received with respect to its publicly reporting hospital-acquired infections has been positive. One of the criticisms we have received is that our public reporting about this deadly issue does not help to improve care. In fact, we

have heard over and over again from industry officials that *reporting* infection rates is not the same as *reducing* infections. Well, on that point, I agree. But, if you don't collect data, you can't identify the problem; and if there is no public accountability, where is the incentive to provide solutions?

After PHC4's first report was issued, one of our critics said, "There is no evidence to support the public disclosure as a means to reduce the incidence of these infections." My response to was that he was only half right.

There is no evidence to support public disclosure because *public disclosure of hospital-acquired infections has never been done – until now.*

We have also been cautioned about the potential consequences of mandatory reporting for hospital-acquired infections. It has been argued that such mandatory reporting may deflect resources from patient care and prevention, mislead stakeholders if inaccurate data is published, and cause some physicians to avoid treating sicker patients. This theme – "the unintended consequences of public reporting" – has been repeated in the recent literature on public reporting.

Let me address this issue head on.

First, while there may not be any evidence yet that public reporting DOES help reduce the incidence of hospital-acquired infections, I would humbly suggest there is ample evidence that the way we have been doing business over the past 30 plus years, which has relied heavily on private, voluntary, non-public collection and analysis of data by the CDC is NOT working.

In an article published in the *New England Journal of Medicine* in 2003 they reported that nationally between 1975 and 1995:

- The number of patient days decreased by 36.5%

- Lengths of stay decreased by 32.9%
- The number of inpatient surgical procedures decreased by 27.3%
- The number of infections decreased by 9.5%

However:

- The incidence of nosocomial infections per 1,000 bed days increased by 36.1%

(*New England Journal of Medicine*, 348:7, 2003)

It was ***these*** statistics that caused the *Journal* to publish the following remarks in its editorial:

> "If collecting data in isolated hospital areas represents "best practice" when 2 million Americans develop a hospital-acquired infection, resulting in 90,000 deaths, and $5 billion in cost, then best is just not good enough." (*New England Journal of Medicine*, 348:7, 2003).

To echo the title of today's hearing, PHC4 believes that public reporting ***IS*** about saving lives and money by empowering consumers and purchasers of health care benefits. Public reporting is the first step in measuring the extent of the problem and the effectiveness of solutions implemented. Public reporting changes behavior. The best scientific evidence of this is the most recent study done by Dr. Judith Hibbard, and published in the July/August 2005 issue of *Health Affairs*, indicating that hospitals that were publicly reported on in Wisconsin had significant quality improvement the following year – while those that were NOT publicly reported on, and that had only private feedback, or no feedback at all, showed little, if any, improvement.

And with respect to hospital-acquired infections, PHC4 believes that by providing objective, comparative data to the public, both patients and third-party payors can make more informed decisions about choosing a hospital and our hospitals themselves, with heightened

awareness of the seriousness of this issue, and with the potential for public accountability, will more rapidly implement better and more contemporary infection control practices.

PHC4 works under the philosophy that the public reporting of health care data is the policy approach that saves the most lives and best stimulates quality improvement. This philosophy is, in fact, consistent with the Administration's current goal of increased health care price and quality transparency. And the case for public reporting can be made by several PHC4 achievements. For example, since PHC4 began publicly reporting patient mortality rates for Pennsylvania hospitals, these rates have dropped from significantly above the national average in 1993 to significantly below the national average in 2003. Similarly, mortality rates for coronary artery bypass graft surgery in Pennsylvania have dropped 48% in the past ten years, mirroring the years of public reporting by PHC4. And, Hannan, Chasen et al, demonstrated that in the case of the two states that had been publicly reporting on CABG mortality the longest, New York and Pennsylvania, the decrease in CABG mortality was significantly greater that that experienced across the nation at large. (*Medical Care*, 2003).

One of the other criticisms I would like to address is the rhetoric of the "meaninglessness" of our data, perhaps best articulated in an August 2005 *Governing* magazine article:

> "Put out these gross statistics and people get all alarmed, but what are they going to do with this data? If you think hospitals are going to scramble and fix it, then maybe, but I don't think that's what will happen. I think they will look at the data and call it what it is — meaningless."

Meaningless? To whom?

The following letter to the editor appeared in the July 29, 2005 issue of the *Pittsburgh Post Gazette*:

> I was interested in reading about hospitals and infections ("Alarms Raised on Hospital Infections," July 12). My husband went into one of the large hospitals in the Pittsburgh area for a heart catheterization and was told he needed open-heart surgery. I spoke with the surgeon after the operation and was told that the operation was a success. After about four days of intensive care, I saw a new bag hanging beside the bed and asked why and what for. I was told he had an infection and needed an antibiotic. I asked how did he get an infection. The reply was "Everyone thinks that hospitals are the cleanest places in the world, but they are not." My husband died on the 12th day in the intensive care unit. Remember the old saying, "The operation was a success, but the patient died"? How true."
>
> ELINOR ROGERS McGINN
>
> Churchill

And, on July 18, 2005, Frederick K. Miller said:

> "I am glad to see a state agency doing its job! My wife had three operations. The Dr. did not address her infection for a year after surgery. She got the infection at a local hospital. There is a low staff of nurses. I had several relatives get an infection at the same hospital. One of them died."

While I take issue with the notion that our data is meaningless, I am cognizant of the fact that the data on hospital-acquired infections needs to be improved, and made both meaningful and actionable.

And, with all due respect and deference to the CDC, what is currently viewed as the national standard for gathering information on hospital-acquired infections – the National

Nosocomial Infections Surveillance System (NNIS) and the definitions and guidelines that it uses – does not meet the mark. This voluntary system has operated for over 30 years, involves data collection which is not comprehensive, consistent or comparative and, for the most part, is not publicly available.

In a study of the NNIS data collection/reporting, conducted by the Centers for Disease Control and Prevention itself, and subsequently reported in a 1998 issue of *Infection Control and Epidemiology,* three separate groups of infection control experts reviewed 1136 patient charts in order to determine the consistency, objectivity and credibility in using such a surveillance system for identifying hospital-acquired infections. After a review of the charts, results from abstracters at nine NNIS participating hospitals indicated **611** infections were present. A second group of trained reviewers evaluating those same patient charts found 474 out of those 611 infections reported were in fact, hospital-acquired infections, but also found 790 additional infections not reported by the hospital, for a total of **1264**. Finally, in a review of the charts by CDC personnel themselves, 525 out of the 611 were identified as hospital-acquired infections with an additional 340 infections not reported for a total of **865** total infections.

The study, in my eyes, demonstrates that, a voluntary, hospital-based reporting system used to monitor hospital-acquired infections and guide the prevention efforts of infection control practitioners, is neither objective, nor consistent; and brings all the biases that human judgment and diffuse guidelines produce. In today's age of technology and the ability to electronically download lab, pharmacy, and other vital clinical data, private companies like MedMined, Theradoc, Cereplex, and others have already developed software tools that in a far more automated way, detect and identify hospital-acquired infections. Just as it is with a patient's medical record and history, it's time to let the paper and pen go.

Don't Let the Perfect Be the Enemy of the Good

I believe, to its credit, that the CDC will acknowledge some of the shortcomings of the manner in which the NNIS database was collected, and the problems with very complicated and often misinterpreted definitions. While I believe it has been problematic, I do not believe that the data needs to be perfect. That is why my fifth message is that *we cannot let the perfect be the enemy of the good.* When it comes to data collection and public reporting, we do not need pine needle detail, data perfection or epidemiological purity to shine light on a problem. Those who argue about needing perfection before we publicly report, miss both the light, and the point. Sometimes, sunshine is the best disinfectant!

In fact, we need to find ways to get some of the most dedicated people I've met – the physicians in infectious disease and our infection control professionals – out of the pine needles of manual data collection, and onto the floors and into the rooms of hospitals, so they can do the job they were trained for – finding and preventing the causes of the hospital-acquired infections.

I also think I can safely say that the pattern in Pennsylvania, as well as in other states that embrace public reporting, is that once health care data gets reported, the data gets better and so do the improvement efforts.

States are the Incubators of Health Care System Innovation

With that said, my final message today is that *states have historically been, and continue to be, the incubators for innovation and solutions,* and, as such, their role in transforming the nation's health care system needs to be engaged, and enlarged. In addition to shedding light on

the problem of hospital-acquired infections, Pennsylvania, and others, have led the way in other efforts to promote greater transparency in health care through collecting and reporting health care data. Florida, Maine, New York, Maryland, New Jersey, and Virginia are also laboratories of transparency, using different outcome measures and different data collection methods, but all aimed at the same goal: greater public transparency on both quality and cost.

In testifying before a U.S. Senate Committee two weeks ago, Paul H. O'Neill said:

> "Unfortunately, the federal government rarely sets performance targets at all, let alone setting them at the theoretical limit of human attainment. The result of not insisting on the elimination of fundamental problems with the performance of the healthcare system is more of the same, or worse. For example, there are clear reasons that the appalling healthcare-acquired infection rate – affecting approximately 1 in 12 people admitted to the hospital -- has been steady or increasing for decades."

I believe Mr. O'Neill was right. It's time to stop wringing our collective hands, and start washing them!

States need the flexibility, and the Nation benefits, when states are encouraged to experiment with solutions that may work toward a common goal, while recognizing the unique socio-economic and political environment that varies dramatically among the 50 states.

Rather than setting a single standard on the "what's and "how's" of data collection, what Congress can best do is establish performance targets and goals, and then provide incentives that states can use, with flexibility, and, given their own limited resources, begin to act on reducing and eliminating hospital-acquired infections.

If Congress said simply and clearly: In five years, the goal of our health care delivery system should be to eliminate all hospital-acquired infections, and, in five years, Medicare will no longer pay for any hospitalization in which a hospital acquired infection occurs; I humbly suggest the goal of patient safety that we all share would be transformed into action virtually overnight by our hospital and physician community.

There could be no more noble or compelling issue for Congress, and our nation, to tackle.

While the public may not fully grasp the nuances of a risk adjusted mortality rate, or how to decipher HEDIS measures on appropriateness of preventive care outcomes, when it comes to hospital-acquired infections, the public "gets it"! Hospital-acquired infections are bad. They don't want one; they don't want their family or friends to get one; and they ***want to know***, should they have to be hospitalized, which hospitals in their area are doing the best to prevent them.

In fact, what the public fully "gets" is, they ***DON'T*** want to "get it".

In Pennsylvania, we're doing our best to provide usable, actionable information to see that this goal is achieved.

Mr. Chairman, on behalf of the Council members that set our priorities and agenda, and with pride in the dedicated and talented staff of PHC4, I thank you for the honor and the privilege of testifying here today.