Statement of The Albert Einstein Healthcare Network

Before the

Senate Public Health and Welfare Committee

Presented by

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Chair Erickson and members of the Senate Public Health and Welfare Committee, I am Jeffrey Cohn MD, MHCM, Chief Quality Officer of the Albert Einstein Healthcare Network (AEHN). I appreciate the opportunity to present the views of our Network on healthcare-associated infections and how we are working to improve quality and patient safety.

Background

Albert Einstein Healthcare Network is an integrated, 1,200-bed urban safety-net healthcare system that offers a broad range of medical services to the residents of Philadelphia and its surrounding communities. 80% of our patients are covered through Medical Assistance or Medicare or are uninsured. In addition to our role as a healthcare provider, we serve as an economic engine for NW Philadelphia. AEHN employs nearly 7,000 employees, of which 1,000 live in neighborhoods that offer far too few opportunities for its mostly low-income minority residents. Lacking a large endowment, we find each year the annual budgeting process to be a challenge. We constantly are forced to ask ourselves "What can we afford to do? What would we like to do that we cannot afford?" Despite these ongoing challenges, we have chosen to invest in personnel and technology in many ways in order to help reduce and, ultimately, eliminate healthcare-associated infections.

Putting Commitment into Action

In 2003, AEHN joined the Premier/CMS Hospital Quality Improvement Demonstration Project (HQID). This pilot project has focused on the use of pay-for-performance as an incentive towards improving the delivery of care for patients with five different diagnoses: Acute Myocardial Infarction, Heart Failure, Pneumonia, Coronary Artery Bypass Surgery, and Hip and Knee Replacement Surgery. Over the first three years of this initiative, care at Einstein has improved steadily. As measured by the "composite quality score" metric, the sum of all the quality indicators being measured divided by total opportunities, our results progresses as

follows: Acute Myocardial Infarction 88% year one → 96% year three; Heart failure 60% year one → 90% year three; Pneumonia 70% year one → 92% year three; Coronary Artery Bypass Surgery 89% year one → 99% year three; and Hip and Knee Replacement Surgery 83% year one → 97% year three.

Also in 2003 AEHN enrolled in the Trial to Reduce Antimicrobial Prophylaxis Errors (TRAPE), a national clinical trial focusing on reducing post-operative Surgical Site Infections through the provision of timely doses of the proper antibiotics. This trial randomly assigned institutions to those providing "standard care" and those in an intervention arm receiving more detailed education and feedback. We were assigned to the standard arm, and yet our improvements and overall results ranked second among the over 30 institutions participating. Interventions that we initiated that were confirmed in TRAPE to be effective in improving antibiotic use included creating standard order sets, having antibiotics available in the operating room for administration, providing feedback to providers, and shifting the site of the pre-operative dose of antibiotics from the patient's room to the operating room or perioperative suite.

In 2004, AEHN joined with the **Institute for Healthcare Improvement (IHI)** and other organizations in the 100,000 Lives Campaign, a national effort to reduce preventable deaths in U.S. hospitals. We created interdisciplinary teams focusing on reducing Surgical Site Infections and Blood Stream Infections. We also continued the effort we started through the HQID to optimize our care for patients with Acute Myocardial Infarction. We also began our efforts to create a Rapid Response Team and to develop mechanisms to reliably provide medication reconciliation throughout the continuum of care. According to the methodology used by IHI, over the 18 months of the 100,000 Lives Campaign, there were over 20 lives saved through AEHN's efforts.

Since 2004 AEHN has worked with the Pennsylvania Health Care Cost Containment Council in their efforts to report healthcare-associated infections. Dorothy Borton, our Director of Infection Control, has served on their advisory committee. Despite the challenges of working in what, until recently, was an environment where cases were identified and reported totally manually, our Infection Control Practitioners have worked hard to create timely and accurate reports for submission to PHC4.

AEHN joined the Surgical Care Improvement Project (SCIP) in 2005. This national effort is hoping to reduce post-operative complications by over 20% in the next five years by implementing a number of best practices for perioperative patient management. Expanding on our work from the TRAPE study, we have multidisciplinary teams looking at antibiotic provision for a variety of major surgeries, as well as prevention of blood clots and cardiac events postoperatively, two of the most lethal and preventable complications of surgery.

In 2006, AEHN joined other institutions from SE Pennsylvania in the Health Care Improvement Foundation's collaborative project with Independence Blue Cross, the Partnership for Patient Care. We participated in the bloodstream infection initiative, which looked at applying the proactive risk assessment tool, "Failure Modes Effects and Analysis" to the various processes

involved in inserting and maintaining central venous catheters. Over the last 7 months our bloodstream infection rate has declined by almost 20%.

Also in 2006, AEHN became one of six institutions named as a beta site in the Robert Wood Johnson sponsored Positive Deviance/MRSA Eradication project. Other beta site institutions are the Pittsburgh VA Hospital, Johns Hopkins and Franklin Square in Baltimore, University of Louisville, and Billings Clinic (Montana). Collectively we are attempting to eradicate hospital transmission of the resistant bacteria, MRSA, through the application of a novel approach to behavioral change, "Positive Deviance (PD)." The basic concept of PD is that the solutions to even a problem as serious as hospital transmission of MRSA are right before our eyes. PD states "in every community or organization there are certain individuals or groups whose uncommon practices/behaviors enable them to find better solutions to problems than their neighbors or colleagues who have access to the same resources." Instead of bringing the best practices/expert recommendation to the caregivers on the frontlines, PD asks the caregivers themselves to identify the solutions and to turn them into actions. Since July 2006 four of our units have been designated as pilot units- our Surgical ICU, our Medical Stepdown Unit, our Oncology/Transplant Unit, and our Brain Injury Rehab Unit. On these units frontline staff have been meeting periodically in short "Discovery and Action Dialogues" where people talk about what is working, what's not, what needs to happen differently to make improvements, and who needs to come to the table to make the change take place. On these units we obtain surveillance cultures on admission and discharge. Patients identified as being colonized with MRSA are placed in single-bed isolation rooms and staff are asked to gown and glove before entry into those rooms. Through collection of this data we have identified that roughly 20% of patients admitted to these units are colonized with MRSA on admission. On the Medical Stepdown unit, of those colonized with MRSA on admission, over 50% reside in nursing homes and nearly 1/3 are on long-term hemodialysis. In the 10 months since initiation of this project, despite the fact that only 4 of our units are participating, we have experienced a 20% reduction in hospital-acquired MRSA infections and mortalities in those patients compared to the prior year. Our early results have inspired us to expand our efforts to all of our units, increasing our costs significantly, but ultimately leading to reduced harm for our patients.

In December 2006 IHI announced a new campaign, the 5 Million Lives Campaign, designed to accelerate efforts to reduce non-fatal harm, while continuing to fight needless deaths. AEHN has enrolled in this effort as well, and has teams focusing on all of the domains of this important project, including working with our Board of Trustees to optimize their engagement in our quality structure.

Information Technology

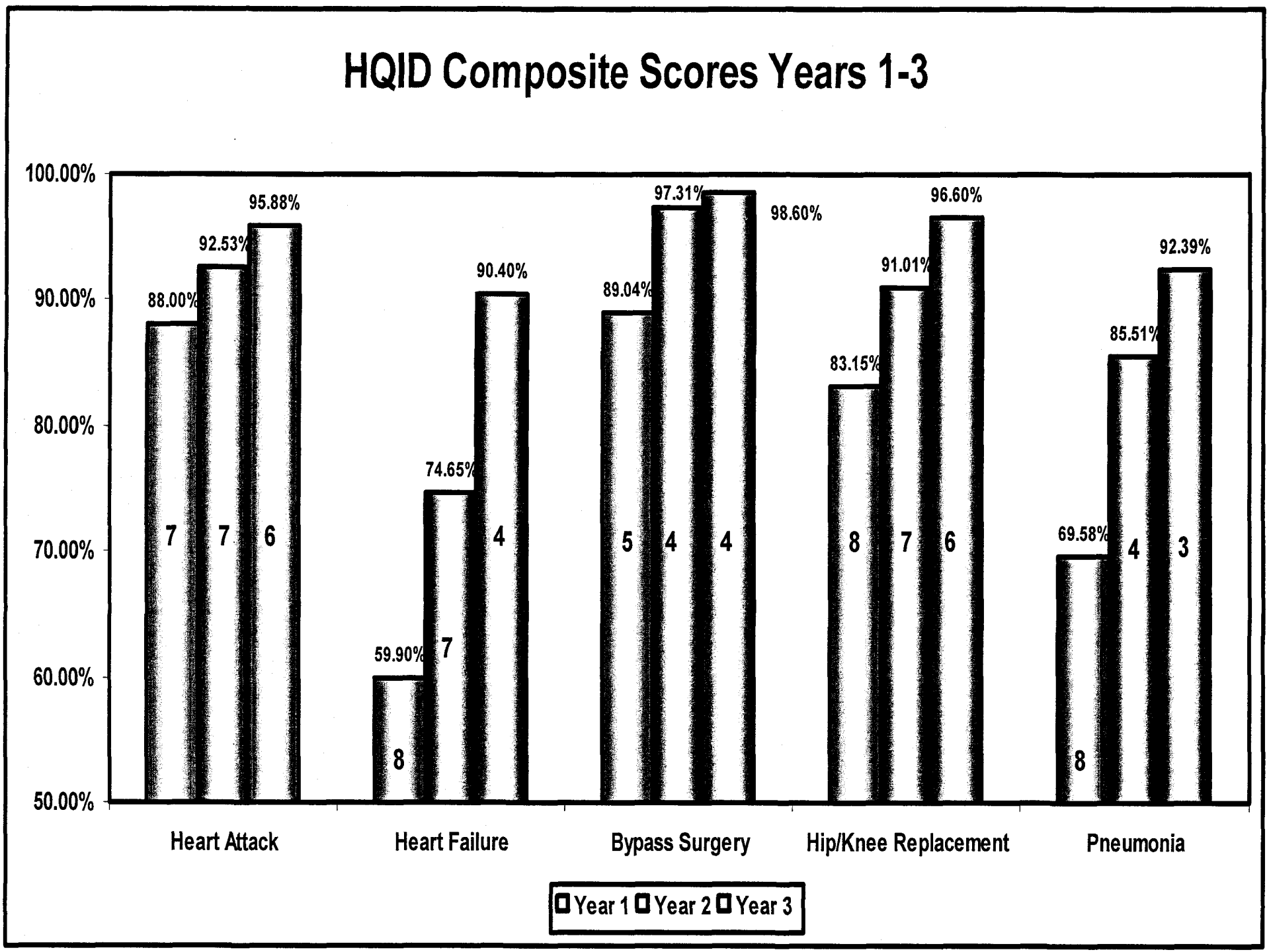
In 2006, AEHN evaluated the use of information technology to enhance our infection control data surveillance process. We have chosen to invest in the Cereplex (now Setnet) tool, developed by Dr. Dan Peterson from the CDC. This tool takes us from an era where this work was done through a labor-intensive manual process to one that is much more automated. Its use

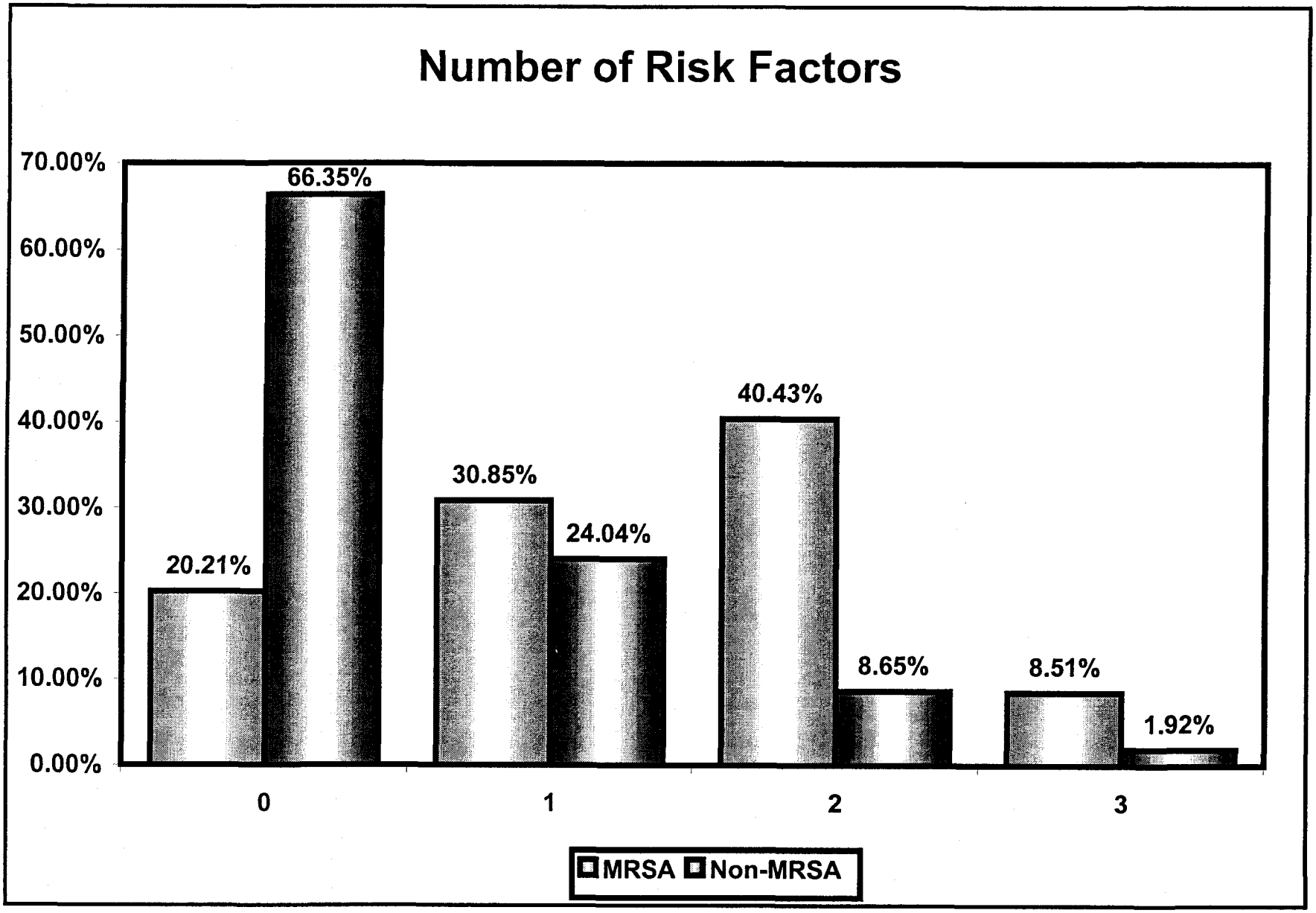
enables us to detect single events or clusters of cases that we have designated as high-priority. Through its linkage with the pharmacy information system we can link infection data with antimicrobial use, identifying mismatches between the organism being treated and antibiotics being prescribed, as well as the emergence of resistant organisms. This tool helps us to distinguish between infections that the patient has brought with them into the institution and one that is truly healthcare-associated.

Summary

It is clear that while AEHN is doing much to diagnose and prevent healthcare-associated infections, we cannot solve this problem alone. We need to partner with public and private payors, government, other healthcare providers such as nursing homes and dialysis centers, and patients and families. We must also recognize that the environment in which we work is fluid. Changes in antimicrobials, new patterns of resistance, and an aging population call for us to have a healthcare system capable of adapting as needs arise. We look forward to working collaboratively with all stakeholders to ultimately eliminate healthcare-associated infections.

HQID Composite Scores Years 1-3




Number of Risk Factors
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60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
66.35%
20.21%
30.85%
24.04%
40.43%
8.65%
8.51%
1.92%
0
1
2
3
MRSA
Non-MRSA