Partnership for Patients – 2014 Expectations

- 100% participation by nation’s acute care hospitals
  - Recommitment of participating hospitals
  - Recruitment of non-HEN hospitals in PA

- Ramp up and accelerate pace

- CAUTI, readmissions, health disparities and senior leadership engagement
  - Leadership includes:
    - Culture
    - Patient and Family Engagement (PFE)
    - All levels of leadership

- Expand collaborations and efforts beyond acute care facilities
  - Skilled facilities; long-term acute care hospitals; home health

- Achieve goals by December 2014
  - 40% reduction in preventable harm
  - 20% reduction in 30 day all cause readmissions
How is PA-HEN doing?

- Immersion Project Results
  - 42% reduction in all cause harm
  - 36% reduction in preventable CHF and COPD readmissions

- HEN-wide Results
  - 17% reduction in all cause harm
  - 24% reduction in all cause readmissions

Current reduction has resulted in estimated 50,066 Pennsylvanian’s lives saved from harm and an estimated cost avoidance of $483 million.

Continued steady progress towards goal achievement!
Tactics To Facilitate Goal Achievement

• Continue immersion projects and HEN-wide results focus on reducing harm and readmissions
  ▪ Accelerate pace of improvement
  ▪ Tackle the biggest opportunities for improvement – CAUTI, VTE, PrU

• Include opportunities for **senior leadership** and **patient family engagement** with HEN and hospital quality and safety work

• Position safety as a core value and key leverage point to prevent harm and readmissions

• Reward and recognition
  ▪ Honor roll for top performing hospitals
  ▪ Identify mentor hospitals and pair with hospitals experiencing challenges
## Project Portfolio to Reduce Harm and Readmissions

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<thead>
<tr>
<th>Lead Organization</th>
<th>Project or Focus Area</th>
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<tbody>
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<td>Preventable Readmissions</td>
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<td>Pressure Ulcers</td>
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<td>Catheter Associated Urinary Tract Infections</td>
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<td>Ventilator-Associated Pneumonia</td>
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<td>Healthcare Disparities Focus Area</td>
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<td>Patient and Family Engagement Focus Area</td>
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<td>Patient Safety Authority</td>
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<td>Adverse Drug Events</td>
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<td>Patient Falls</td>
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<td>Quality Insights of PA</td>
<td>Venous Thromboembolism</td>
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<tr>
<td>Health Care Improvement Foundation</td>
<td>Obstetrical Adverse Events</td>
</tr>
<tr>
<td>HAP and Patient Safety Authority</td>
<td>Culture of Safety and Leadership Focus Areas</td>
</tr>
</tbody>
</table>
PA-HEN Project Team Deliverables

All HAC projects:
• Dedicated PA-HEN Immersion Project Leader
• Technical support and targeted assistance
• Education and information sharing activities
  • Access to national faculty and experts
• Regional meetings and networking opportunities
• Baseline and follow-up surveys
• Evidence-based practices, toolkits, resources
• PassKey collaborative website for each project
• Data support, analysis, reports and benchmarking
  • Hospital specific and aggregate HEN-wide
• Identification of top performers to serve as mentors and share success stories and strategies
• On-site consultation, training and/or visits
• Spread and sustainability
Short-term deliverables:

• Complete and submit CEO Commitment letter
• Complete and submit project selection form
• Appoint executive sponsor for project(s)
• Assign project leader, physician(s) and multidisciplinary team
• Commit adequate time for team to routinely:
  • engage in meetings, improvement work and generate results
  • participate in PA-HEN education events, project activities, and improvement work
Hospital Project Team Deliverables

Ongoing deliverables:

- Hospital teams routinely:
  - engage in meetings, improvement work and generate results
  - participate in PA-HEN education events, project activities, and improvement work

- Data collection and submission: outcome and process measures
  - Project specific, as applicable
  - Request - All hospitals submit PC-01 and VTE-6 data results for HEN-wide results reporting

- Develop, implement and evaluate action plans aimed at driving results to achieve goals

- Involve patients and families in improvement work

- Share lessons learned, resources, and best practices

- Participation in periodic 1:1 calls with HEN leadership to discuss results, successes, challenges and leverage what is learned from immersion projects
PA-HEN Project Overviews
Pressure Ulcer Prevention

• **Accomplishments**
  - HEN-wide results:
    - 8% increase in PSI-3 rate
    - 76 of PA-HEN hospitals demonstrated at least some level of improvement on performance scores
  - Immersion project results:
    - 21% reduction in the rate of hospital acquired pressure ulcers
    - Process measures –
      • Consistently meet goal of 95% compliance

• **Purpose**
  - 40% reduction in hospital-acquired pressure ulcers
  - Facility-wide reduction in PSI-3 rates
  - Improve the hospital-wide culture of safety
Pressure Ulcer Prevention

• Activities
  - Self-assessment survey tool
  - Hospital visits and re-visits from Skin Care Safety Advisors
  - Identification of unit-based Skin Care Safety Champions
  - Integration of Patient and Family Engagement principles

• Contact Information
  - Janette Bisbee, Project Leader
Readmissions

• Accomplishments
  ▪ HEN-wide Outcome:
    • Reduction in 30-day all cause readmissions
  ▪ Immersion Project Outcomes:
    • CHF 41% reduction in readmissions
    • COPD 31% reduction in readmissions
  ▪ Health literacy and “Teach back” training for 33 hospitals

• Purpose
  ▪ 20% reduction in 30 day all cause readmissions
  ▪ Improve patient care transitions across the continuum
Readmissions

• Activities-in addition to standard activities
  ▪ Process Measure-Interview question completed with patients who are readmitted
  ▪ Outcome Measure- 30 day All Cause Readmission Rate
  ▪ Regional Events
  ▪ One-on-one coaching calls
  ▪ Data workbooks
  ▪ On-site Visits and site trainings

• Contact
  ▪ Cindy Hipszer, Readmissions Project Leader
Surgical Site Infections (SSI)

- Accomplishments
  - HEN-wide results-
    - 18% reduction in hip and knee SSIs
    - 11% reduction in benchmark surgeries
  - Immersion project results-
    - 53% reduction in hip and knee SSIs
    - 36% reduction in benchmark surgeries

- Purpose
  - 40% reduction in hip and knee SSIs
  - 40% reduction in benchmark surgeries

- Activities
  - Outcome measures pulled from NHSN
  - Process measure- includes both decolonization of nares and skin
  - One on one calls and site visits
Central Line-Associated Bloodstream Infections (CLABSI)

• **Accomplishments**
  - HEN-wide results-
    - 6% reduction in CLABSI rates
  - Immersion project results-
    - 1% increase in CLABSI rates

• **Purpose**
  - 40% reduction in CLABSI house wide

• **Activities**
  - Outcome measures pulled from NHSN
    - CLABSI rate
    - Device utilization rate
  - Process measure- includes both insertion and maintenance bundles
  - One on one calls and site visits
Ventilator Associated Events (VAE)

• VAP Accomplishments 2010 – February, 2013
  ▪ HEN –wide results-10% reduction in VAP
  ▪ Immersion project results – 63% reduction in VAP

• VAE Accomplishments Q2 2013 -Present
  ▪ HEN-wide results – 14% reduction in VAE
  ▪ Immersion project results – 31% reduction in VAE

• Purpose
  ▪ 40% reduction in VAE for all ventilated patients
  ▪ Participate in VAE/VAP project sponsored by John Hopkins Armstrong Institute for Patient Safety and Quality

• Activities
  ▪ Cohort 2 starts 7/1/14
  ▪ Integration of safety (CUSP) and technical (interventions)
Catheter Associated Urinary Tract Infections (CAUTI)

• New HAI Project for 2014
• CAUTI rates have been increasing over last several years
  ▪ Current HEN-wide results-16% increase in CAUTI rate
• Purpose
  ▪ 20% reduction in CAUTIs hospital wide rates
• Activities
  ▪ Outcome measures pulled from NHSN
    – CAUTI Rates
    – Device Utilization Rates
  ▪ Process Measure- include a chart/record component and a bedside component.
Hospital Acquired Infections

• Contact
  ▪ Mary Catanzaro, Project Leader
  ▪ Clare Edelmayer, Project Leader
Obstetrical Adverse Events

• **Accomplishments**
  - HEN –wide results-26% reduction in EEDs
  - Immersion project results –
    - 92% reduction in EEDs
    - Improved compliance with IHI Induction Bundle
    - Improved compliance with IHI Augmentation Bundle
    - Transfusion rates below national benchmark of 1% for 13 out of 17 months

• **Purpose**
  - 40% reduction in non-medically indicated EED’s
  - Diagnose and treat OB hemorrhage promptly and effectively
  - Improve pre-eclampsia treatment and management (new topic)
Obstetric Adverse Events

• **Activities**
  - Monthly measurement on a set of “required” and “optional” process and outcomes measures
  - Workgroup meetings: share strategies and resources, standardize tools, identify opportunities for improvement
  - Provide intensive support to hospitals with EED rates > 5%
  - 7-part webinar series
  - Build on hospitals’ effectiveness in simulations and drills, patient and family engagement, addressing disparities

• **Contact Information**
  - Pam Braun, Project Leader
  - Claudette Fonshell, Project Leader
Falls Reduction and Prevention

• **Accomplishments**
  • HEN-wide results
    ▪ Facility Level – 32% reduction in falls with harm
    ▪ Unit Level – 35% reduction in falls with harm
  • Immersion project results
    ▪ Facility Level – 29% reduction in falls with harm
    ▪ Unit Level – 34% reduction in falls with harm
  • Process Measures
    ▪ Falls Assessment Completed – 95% compliance
    ▪ Patients at risk for falls with assessment completed and prevention strategy in place – 98% compliance

• **Purpose**
  • Achieve 40% reduction in falls with harm per 1,000 patient days
  • Facility and unit level benchmark falls data
  • Collaborative learning network
  Evidence-based best practices for falls prevention strategies
Falls Reduction and Prevention

• **Activities – in addition to standard activities**
  - Annual self-assessment survey tool completion and submission
  - Quarterly audit submission
  - Quarterly audit report summary provided to hospitals
  - Quarterly performance report provided to hospitals
  - In-person regional meetings
  - Behavioral Health Workgroup
  - On-site visits and consultations

• **Contact**
  - Christina Hunt, Project Leader
Preventing Wrong-Site Surgery/Anesthesia Block

• Accomplishments
  ▪ HEN-wide results
    • 27% reduction in wrong-site surgery (WSS)
  ▪ Immersion project results
    • 7% reduction in WSS
    • 19% reduction with process measure implementation
  ▪ On-site visits; Grand Rounds presentations
    • Procedures delayed for all surgical and anesthesia staff to attend
  ▪ Regionalized workshops and teleconference series
  ▪ One-on-one outreach/coaching sessions

• Purpose
  • 20% reduction in wrong-site anesthesia events
  • Opportunity for improvement with anesthesia blocks exist
Preventing Wrong-Site Surgery/Anesthesia Block

• **Activities**
  - Outreach session to evaluate:
    - Adoption of wrong-site anesthesia prevention practices, and
    - Compliance of prevention practices through direct observation of local and regional anesthesia blocks
  - Conduct regional workshops and onsite visits
  - Monitor the number wrong-site surgery/anesthesia events reported through PA-PSRS and compare to concurrent and historical controls

• **Contact**
  - Theresa Arnold, Project Leader
Adverse Drug Events

• **Accomplishments-Opioids**
  - Achieved goal of 40% reduction in opioid-related serious events
  - Shared information with numerous HENs and HHS
  - Identification of knowledge deficits with opioid use and inadequate processes within organizations

• **Purpose**
  - 40% reduction in patient harm due to opioid-related serious events
  - Hospital wide

• **Activities**
  - Outcome measures
    - Naloxone use
    - Rapid response team calls
  - Process measures
    - Opioid status assessments
    - Post opioid administration assessments
    - Opioid Organization Assessments
    - Opioid Knowledge Assessments
Adverse Drug Events

• New for 2014
  ▪ Insulin and anticoagulants drug classes

• Purpose
  ▪ Medications most often associated with patients admitted to ED
  ▪ Improve discharge education for patients
  ▪ 40% reduction in patient harm due to medication events
    • Reduction in hypoglycemia due to insulin (blood sugar < 50)
    • Reduction in elevated INRs for patients on warfarin (INR >5)

• Activities
  ▪ Outcome measures
  ▪ Process measures
    • Percent of patients discharged on warfarin and insulin that were provided discharge education on specific items
  ▪ Organization Assessment
  ▪ Knowledge Assessment

• Contact
  ▪ Matthew Grissinger, Project Leader
**Venous Thromboembolism (VTE) Prevention**

- **Accomplishments**
  - HEN-wide results
    - 7% increase in PSI-12 postoperative embolism or deep vein thrombosis
  - Immersion project results
    - 75% reduction in potentially preventable VTEs

- **Purpose**
  - 40% reduction in potentially preventable VTEs hospital wide

- **Activities**
  - Spread and sustainability
  - HEN-wide data submission of potentially preventable VTEs (VTE 6)

- **Contact**
  - Dawn Strawser, Project Leader
  - Eve Esslinger, Project Leader
Next Steps

• Complete and submit CEO commitment letter
• Complete and submit project selection form
• Reminder to complete and submit OAT survey
• Gentle reminder to submit PC-01 & VTE 6 data
Take Home Messages

• **Year 3 Focus and commitment**
  - Achieve 40% and 20% reduction goals
    - Ramp up action CAUTI, Readmissions, ADE, VTE, PrU and health disparities
    - Leverage what is learned and share with all PA-HEN hospitals
  - Enhance Senior Leader Engagement and Patient and Family Engagement
    - Patient safety as a core value

• **Continuous journey**
  - Partnership **with** Patients
  - Fluid movement along improvement continuum
  - Purposeful commitment to everyday action
    - Way of life – not an add-on

• **PA-HEN and hospitals positioned well to achieve 40% and 20% reduction goals**
Questions or Comments
## Pennsylvania Hospital Engagement Network
### Contact Information
#### December 2013 – December 2014

<table>
<thead>
<tr>
<th>Projects</th>
<th>Partner</th>
<th>Project Leader Contact Information</th>
</tr>
</thead>
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<table>
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<tr>
<th>Projects</th>
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<tbody>
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The Hospital & Healthsystem Association of Pennsylvania (HAP)
Pennsylvania Hospital Engagement Network (PA-HEN)
2014 Project Designs
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Introduction
The Hospital & Healthsystem Association of Pennsylvania (HAP) was one of only 26 organizations across the country to receive a contract to serve as a hospital engagement network (HEN) with the Centers for Medicare & Medicaid Services (CMS) for the national Partnership for Patients (PfP) campaign. The PfP is a three year initiative, with two overarching goals to be achieved by the end of 2014: reduce preventable harm by 40 percent and reduce readmissions by 20 percent. These goals are to be accomplished through the partnering of HENs and acute care hospitals on improvement work across the most common preventable hospital acquired conditions (HACs) as well as work on targeted focus areas.

Pennsylvania Hospital Engagement Network (PA-HEN) Journey
PA-HEN was formed to provide Pennsylvania hospitals with opportunities to enhance the patient health care experience through participation in collaborative programs and with a portfolio of projects designed to reduce preventable harm and readmissions. HAP leads and directs the PA-HEN along with its subcontractor partners:
- Pennsylvania Patient Safety Authority (PSA)
- Health Care Improvement Foundation (HCIF)
- Quality Insights of Pennsylvania (QIP)
- Pennsylvania Health Care Quality Alliance (PHCQA)

Pennsylvania Hospital Engagement Network (PA-HEN) Email Contact Information

<table>
<thead>
<tr>
<th>Hospital Acquired Condition</th>
<th>Project Leader</th>
<th>Email</th>
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<tbody>
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What Hospitals Can Expect from PA-HEN Leadership and Project Staff

- PA-HEN program and Leadership Team support
  - HAP, PSA, HCIF, PHCQA, QIP
- PA-HEN Project Leader
  - Provides facilitation, guidance, assistance and technical support
- Collection, analysis and sharing of standardized data
- Collaborative learning network and Passkey website for sharing project information and tools
- Targeted education and access to experts
  - Periodic webinars, face-to-face meetings, conference calls, coaching
- Networking opportunities to promote sharing
- Tools to help hospitals build capacity to address patient safety issues and improve the culture of safety
- On-site consultation and/or visits
- Identification of high-performing hospitals to serve as mentors to guide, share best practices and lessons learned
  - PA-HEN hospitals
  - Other HENs

What PA-HEN Leadership and Project Staff Can Expect From Hospitals

- Complete and sign executive commitment form
  - Leadership active commitment and support is key to success
- Commit adequate time for the team to complete baseline and follow-up assessments, data collection and to participate in periodic face-to-face meetings, webinars, conference calls or other education programs included in the collaborative learning
- Complete and submit project selection form
- Identify executive sponsor who will own and direct improvement efforts
- Identify project lead, executive champion, physician lead (as applicable) and multidisciplinary team responsible for management of project
- Submit process and outcome measures
- Develop, implement and evaluate action plans aimed at driving results to achieve goals
- Share lessons learned, resources and best practices with other participating hospitals and the HEN community at large to promote the spread of best practices for implementation
- Participate in periodic 1:1 calls with HEN leadership to discuss results, successes, challenges and leverage what is learned from immersion projects
Year Three Areas of Focus

Senior Leadership Engagement

The Opportunity for Year Three—Senior leaders play a critical role in driving system-wide quality improvement efforts and meaningful and sustainable change cannot occur without their full support and engagement. PA-HEN has identified core senior leader strategies that are essential in establishing a culture committed to safety, improving the patient care experience, and with reducing preventable harm and unnecessary readmissions.

Health Disparities—PA-HEN strongly recommends and encourages the senior leaders of participating hospitals to track and address health care disparities in harm and readmissions as an element and strategy of their organizations’ current quality and safety improvement work.

- Connect quality and cost.
  - Align improvement projects with organizational quality, strategy and goals.
  - Implement incentives (financial and non-financial) to reward success.
- Have clear, measurable aims for improvement.
  - Project and system-level improvement.
- Have a strategy to execute on achieving aims.
  - Appoint multidisciplinary teams to conduct improvement work.
  - Allocate adequate time and resources for teams to conduct project work and for participation in PA-HEN activities.
  - Commit to monthly data collections and submission.
- Communicate regularly with and among board, leadership and staff on progress and transparency of results.
  - Require ongoing review and reporting of data, results and status of improvement.
- Champion the efforts personally and visibly.
  - “Be the change you want to see.”

Patient and Family Engagement

The Opportunity for Year Three—The PA-HEN is actively involved in the patient-and-family-centered-care movement. Evolution came quickly as PA-HEN leadership and project managers came to recognize that providing hospitals with Pennsylvania-specific guidance would assist their teams to provide more consistent, high quality care in a way that is organized around the needs of the patient. The ultimate goal of this initiative is for hospitals to be seen more than ever as comprehensive sources of care that keep people healthy, guide them through care when it’s needed, and stick with them from beginning to end. Instead of finding themselves adrift as they seek care from multiple providers, patients will be guided through, and participate in, their care to assure that their care is coming together in the right way to deliver the right result: better health and greater satisfaction. PA-HEN has created and developed interventions thus far:

- The first hospital association sponsored Patient and Family Engagement Advisory Council in the United States.
  - Our members include patients, family members, and health care providers.
  - A Patient and Family Subcommittee steers the Advisory Council.
- A Guidebook for use by consumers, practitioners, hospitals, and health systems. Patient and Family-Centered Care: A Key Element in Improving Quality, Safety, Perception of Care, and Care Outcomes 2013
- An Assessment Survey for use by hospitals and health systems to share success stories and identify opportunities for improvement.
Pressure Ulcer Prevention

Accomplishments—During the first two years of the PA-HEN contract:
- **HEN-wide** outcome data (PSI-3) has fluctuated over the last two years. Current results show that approximately 76 percent of PA-HEN hospitals have demonstrated at least some level of improvement based on the performance scores.
- **Immersion** project hospitals experienced a 21 percent reduction as reported in current data.
- **Process Measures**-Hospitals participating in the PA-HEN immersion project demonstrated the following compliance rates with best practices associated with skin safety as reflected in the following process measures:
  - 97 percent completing a skin assessment within 24 hours of admission to ICU and 98 percent completing the assessment within 24 hours to medical surgical units.
  - 98 percent completing a risk assessment within 24 hours of admission to ICU and medical surgical units.
  - 92 percent implementation of interventions for “at-risk” patients in ICUs and 84 percent implementation of interventions for “at-risk” patients in medical surgical units within 24 hours of admission.

The PA-HEN pressure ulcer prevention (PUP) project 2011-2013 followed a successful PUP collaborative conducted by HAP that had reduced the occurrence and seriousness of pressure ulcers in acute care hospitals. Data from the PSA shows 1,195 serious events related to skin integrity and a decline to 770 in 2012—a 64 percent decline.

The Opportunity for Year Three—
While there is significant compliance by hospitals with best practices, as reflected in the process measures reported by the immersion project hospitals related to skin and risk assessments and implementation of interventions, PSA data shows a leveling off of serious event reports related to skin integrity. This reflects a continued need to prevent and reduce pressure ulcers in hospitalized patients by equipping patient care teams at all PA-HEN participating hospitals with evidence-based strategies to prevent the occurrence of pressure ulcers and to sustain those strategies.

In addition, Medicare is now using data to identify the incidence of pressure ulcers in hospitalized patients that were not present on admission, which demonstrates the need for acute care hospitals to work with other facilities, including rehabilitation hospitals, long-term care facilities, and home health agencies to collaborate on preventing pressure ulcers across the continuum of care. There also is a connection between the PUP project with readmissions, given the development of pressure ulcers in the post acute care setting requiring hospitalization. The pressure ulcer project in collaboration with the readmission project will continue to include components of patient and family engagement, use of “teach-back,” and improvement in health literacy.

The project’s priorities for Year Three are to spread best practices house wide to ensure that patients in all units benefit from evidence-based practices to prevent pressure ulcers.

Education and Information—PA-HEN plans to:
- Collaborate with other PA-HEN projects, such as readmissions, to foster team approaches to care issues for elderly patients that need to be addressed across the continuum of care and to enable networking regarding success strategies.
- Webinars using expert faculty based on updated organizational self-assessments.
- Integrating patient and family engagement and addressing health care disparities in education and information to support prevention of pressure ulcers.
- One-on-one coaching calls for multidisciplinary hospital teams to discuss success and barriers.
Pressure Ulcer Prevention cont’d

- Networking calls to share success stories and best practices.

**Technical Assistance**—PA-HEN will offer the following technical assistance to prevent pressure ulcers:
- Use of the PassKey collaborative website to share project information and tools, the educational calendar, archived webinars, evidence-based practices, and enable networking.
- Use of on-site consultation by Skin Care Safety Advisors to assist hospitals in developing action plans to prevent pressure ulcers.
- Conduct one-on-one calls to provide technical assistance to all hospitals in the immersion project.

**Resources**—PA-HEN will continue to encourage hospitals to share toolkits, sample forms and documents, policies and procedures, and other resources through the collaborative website on PassKey.

The project will continue to use an organizational self-assessment tool to help hospitals develop facility-specific action plans and to gauge the needs of hospitals that enroll in the project during Year Three. This assessment includes questions assessing health care disparities and patient and family engagement.

**Measures and Evaluation**—Outcome measures are taken from PSI-3, which the AHRQ believes is reliable for providing a realistic picture of pressure ulcer incidence in hospitals. PSI-3 data analysis is provided by PHC4.

For Year Three, the project’s process measures will be revised to reflect competency-based process measures versus task-based process measures used during the first two years of the PA-HEN contract. This is being done to assess the quality of the processes as opposed to just their completion. To accomplish this, the project will include monthly chart reviews to determine whether tools are being used to determine the likelihood of pressure ulcers and whether appropriate implementation interventions were taken.

<table>
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<tr>
<th>Summary of Outcome and Process Measures for Pressure Ulcers</th>
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<tbody>
<tr>
<td><strong>Outcome Measures</strong></td>
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<td>PSI-3 data</td>
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<tr>
<td><strong>Process Measures</strong></td>
</tr>
<tr>
<td>Monthly chart review to analyze adherence to program elements to prevent pressure ulcers</td>
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Readmissions

Accomplishments—During the first two years of the PA-HEN contract:

• **HEN-wide** outcome data currently reflects a 24 percent reduction in all cause readmissions.
• **Immersion** project readmission rates for congestive heart failure (CHF) reflect a 41 percent reduction from baseline and for chronic obstructive pulmonary disease (COPD) reflect a 31 percent reduction from baseline.
• **Process Measures**—The data reveals that in the last 10 months PA-HEN immersion hospitals have been above the baseline and showing 64 percent compliance in chart audits for documentation of patient education comprehension. The current data for phone screens that gauge a patient’s understanding of medications has shown a compliance rate of 95 percent.

While there has been a decrease in all-cause readmission rates as hospitals deployed improved discharge planning and “teach back” approaches, there clearly remains a significant opportunity for PA-HEN and participating hospitals to prevent readmissions given variations in rates and population needs. In Year Three, PA-HEN will continue its work on health literacy to improve the use of “teach back” and to assist in addressing health disparities that impact readmissions.

During the past year, PA-HEN has collaborated with organizations representing long-term care, including the Pennsylvania Health Care Association, Leading Age, and the Pennsylvania Association of County Affiliated Homes. Through these efforts, PA-HEN found challenges in communication between types of facilities; lack of integrated hospital discharge processes with post-acute provider admissions processes; difficulty in sharing patient information electronically; limited PFE; need for better planning for chronic and end of life care; use of more innovative delivery models, including use of advanced practice professionals; and the lack of common measures to gauge performance—both outcomes and financial.

The Opportunity for Year Three—

In Year Three, PA-HEN is continuing collaboration with providers from across the care continuum to develop tools, improve communication, and transitions of care across the continuum of care. This will include CCTPs, Area Agencies on Aging, and organizations representing post-acute care providers.

Using a model developed by the IHI, PA-HEN will encourage participating hospitals to build cross continuum teams to:

• Shift from a focus of site-specific care to patient-centered care.
• Build mutual collaboration between health settings in a community.
• Improve discharge/readmission policies and practices.
• Connect hospital improvement efforts with post-acute facilities’ efforts.
• Connect hospitals and post-acute providers with community organizations.
• Engage patients and families in readmission efforts.

The most challenging environment to address readmissions is in large urban communities given the number of hospitals and post-acute providers. Skilled nursing facilities in these areas do not have staff resources to address the needs of multiple hospital discharge teams. PA-HEN will work collaboratively with Pennsylvania’s CCTPs, QIP, state associations of post-acute providers, and other HENS to identify strategies for addressing these issues.

PA-HEN also will explore the potential for creating a "Readmissions Prevention Bundle" to be accomplished through the collaboration of the readmissions, patient-family engagement, health disparities, and ADE
Readmissions cont’d

prevention projects. This will result in a comprehensive and integrated approach to driving further systematic improvements while collectively reducing readmissions, as well as to drive improvements in each of the individual HACs and focus areas.

Education and Information—PA-HEN plans to:
• Continue to conduct training in health literacy and “teach-back” through webinars and on-site training sessions for low performing hospitals. These sessions include tools for train the trainer programs that can be sustained by hospitals.
• Conduct regional events at health care facilities that include hospital teams, as well as stakeholders from across the continuum of care (Area Agencies on Aging, home health, long-term care, community services, etc.), to focus on building cross-continuum teams to prevent readmission and post-discharge medication reconciliation. The regional sessions have been highly valued in this project as enabling team participation and networking between hospitals, as well as hospitals and post-acute providers.
• Conduct coaching calls on strategies related to team development, discharge models, medicine reconciliation, and data collection and analysis.
• Work with QIP to collaborate on educational events.
• Use of networking calls to allow hospitals to discuss issues and share strategies in developing action plans.
• Coordinating transitions of care education programming with other statewide associations of post-acute care providers.

Technical Assistance—PA-HEN will offer the following technical assistance to prevent readmissions:
• Use of the PassKey collaborative website, including the data portal, to allow sharing evidence-based resources, sharing of policies and tools, and discussion boards.
• Use of one-on-one calls to assist hospitals with data reporting and analysis, as well as problem solving and coaching on use of “teach back,” health literacy, and cross continuum strategies.
• Conduct site visits to teach health literacy, “teach back,” and development of cross continuum teams.
• Identify top and low performing hospitals and pair like hospitals (size/geography) to provide assistance.
• Assist hospitals in monitoring demographic data as a means of improving their action plans.

Resources—PA-HEN made available national guidelines and tools related to preventing readmissions, including:
• Project Re-Engineering Discharge (RED) through the AHRQ and Boston University websites.
• Better Outcomes by Optimizing Safe Transitions (BOOST) through the Society of Hospital Medicine.
• State Action on Avoidable Rehospitalizations (STAAR), including transition guidelines for multiple levels of care, through the Institute for Healthcare Improvement.
• The Care Transitions Program developed by Eric Coleman, MD, MPH.
• Transitional Care Model, Mary Naylor, PhD, RN.
• Identification and use of resources from the National Content Developer and successful case studies by Pennsylvania hospitals.

PA-HEN is developing a toolkit to assist hospitals in the use of cross continuum teams, including successful strategies by hospitals and post-acute providers within their community in building such teams and in educating team members. PA-HEN is using an advisory panel to review the toolkit and cases studies prior to distribution to all PA-HEN participating hospitals.

All resources, policies and procedures, current literature, toolkits, quarterly newsletters, and other materials associated with the readmissions project have been and will continue to be maintained on the PassKey collaborative website.
Readmissions cont’d

Measures and Evaluation—Outcome measures will continue to include all-payer, all-cause 30-day readmission rates as obtained from PHC4.

To focus on progress given identified strategies for Year Three, the following are changes for measures:

• Inclusion of HCAHPS scores related to patient perception of their teaching and understanding to assist in evaluating use of “Teach-back” and health literacy.
• Inclusion of demographics for age, primary language, and ethnicity of patients who are readmitted within 30 days to determine health disparities and to modify strategies accordingly.

For Year Three, the project’s process measures have been revised to reflect competency-based process measures versus task-based process measures used during the first two years of the PA-HEN contract. This is being done to assess the quality of the processes as opposed to just their completion. To accomplish this, patients who are readmitted within 30 days will be interviewed to assess prior appropriateness education and patient understanding.

### Summary of Outcome and Process Measures for Readmissions

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<th>Outcome Measures</th>
<th>Data Repository</th>
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<tbody>
<tr>
<td>All cause 30-day readmission rate</td>
<td>PHCQA</td>
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<tr>
<td>HCAHPS score related to patient understanding</td>
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<thead>
<tr>
<th>Process Measures</th>
<th>Data Repository</th>
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</thead>
<tbody>
<tr>
<td>Patient interview if readmitted within 30 days</td>
<td>PHCQA</td>
</tr>
<tr>
<td>Demographic information related to age, primary language, and ethnicity</td>
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</table>

In addition, in Year Three, a health disparities baseline survey will be conducted to help PA-HEN develop needed education and tools, as well as to assist hospitals in developing action plans related to readmission and health disparities. The readmission project has included use of data workbooks issued on a quarterly basis. In Year Three, the data workbooks include demographic data to enable root cause analysis related to health disparities.
Accomplishments—During the first two years of the PA-HEN contract:

- **HEN-wide** results showed a 40 percent decrease in surgical site infections (SSI) for orthopedic surgeries (HPRO and KPRO combined) and a 31 percent decrease in all six benchmarked surgeries combined (HPRO, KPRO, HYST, CARD, CCBGB, and CBGC).
- **Immersion** project results showed an even greater reduction in SSIs, with a 60 percent decrease in the infections associated with orthopedic surgeries and a 42 percent decrease in all six benchmarked surgeries combined. This reflects that more intensive support can drive even further improvements.
- **Process Measures**—The data for compliance with the decolonization bundle for MRSA/MSSA for HPRO and KPRO surgeries reflects current compliance is 82 percent with goal set at 90 percent.
- A baseline organization assessment was used to determine current practices and educational needs. A toolkit was distributed to all participating hospitals with a protocol that includes:
  - Pre-surgical screening for MRSA/MSSA and decolonization of the nares if the patient is found to be positive for either.
  - Decolonization of the skin with the use of chlorhexidine performed prior to surgery by the patient and again in the pre-op holding area.
  - Use of alcohol-based skin prep in the operating room.
- PA-HEN designed a decolonization project to enable rapid dissemination and use.
- Facilities were instructed to initiate the protocol for elective Class 1 (clean procedures) surgeries with elevated infection rates.
  - Most facilities (89 percent) chose to follow these protocols with HPRO and KPRO. The remaining hospitals identified other surgeries, and some chose both orthopedic and other elective surgeries.
- Hospitals included emergent cases as they believe these patients are more at risk of infection. A modified protocol was developed for these patients.
- The protocol allowed the use of nasal iodine to reduce bioburden in the nares, in addition to the more traditional mupirocin for nasal decolonization because of economics, timing, compliance and physician preference.
- To support the use of protocols, the collaborative workspace was populated with evidence-based literature, archived webinars, competencies, and protocols and policies.
- Ten SSI prevention webinars were conducted on topics including glucose control, use of nasal iodine for education of MRSA/MSSA, beyond bundle practices to reduce SSI, use of CHG to reduce HAIs, use of bundled approaches to preventing SSIs, product evaluation, and data interpretation and analysis.
- Coaching calls were used to drill down into why lapses in protocols occur and hospitals shared methods to overcome barriers. The data workbooks were reviewed, including trends in rates and compliances with protocols.
- One-on-one calls were conducted to troubleshoot hospitals having challenges. The project also provided mentoring opportunities for high performing hospitals to work with low performing hospitals.
- PA-HEN distributed best practices guidelines on SSI prevention and the results of the project to all HAP member hospitals and health systems, including to hospital CEOs. The objective of the guidelines was to reinforce the steps hospitals need to take to achieve decreased SSI rates, including alignment with evidence-based practices in antibiotic prophylaxis.
- PA-HEN collaborated with APIC to participate in regional chapter meetings to spread successful results, facilitate networking and collaboration, and recruit other hospitals to participate in the project.
Surgical Site Infections cont’d

The Opportunity for Year Three—The results achieved by PA-HEN with this project were not uniformly shared across hospitals. It became apparent in the project that some facilities were not able to economically justify the screening or the use of mupirocin for decolonization when a less expensive alternative (nasal iodine) was available. Since the protocol required PFE, there needed to be opportunity for application at the time of admission, rather than at home, to ensure compliance. Patient teaching instructions were geared to a sixth grade reading level, but had to be adapted by some facilities for particular patient populations. There also were some facilities which did not have on-site lab testing or pre-admission testing departments that project managers had to work with to address appropriate protocols. There is a need in Year Three to more systemically adapt and deploy protocols given the diverse economic and patient population needs of Pennsylvania hospitals.

At the same time, there was success in the aggregate in lowering SSI rates in the populations chosen as priorities for the first two years. In Year Three, PA-HEN is targeting Class 2 (clean-contaminated) surgeries.

PA-HEN also plans to collaborate with the Pennsylvania DOH to identify and target hospitals that are noted to be low performers based on the department’s annual HAI report. These hospitals will be encouraged to participate in the immersion project.

Education and Information—PA-HEN plans to:
- Conduct a surgical site prevention webinar each quarter with national expert faculty. These webinars will be archived and made available to all PA-HEN participating hospitals.
- Use mentoring and one-on-one calls to target support to low performing hospitals to address barriers.
- Continue to share results and success strategies, protocols and policies, and current literature on evidence-based practices through bimonthly newsletters and the collaborative website.
  - Include at least one patient advocate in an educational session to give substance to the importance of surgical site infection prevention.
  - Continue to collaborate with APIC to facilitate discussion and networking at regional chapter meetings.

Technical Assistance—PA-HEN will offer the following technical assistance to support SSI prevention:
- Continued use of one-on-one calls to discuss data trends and identify common causes of barriers. This may also be supported by site visits to specific low-performing hospitals to address forward progress strategies.
- Secure resources through the PfP Procedural Harm Affinity group and share this information with PA-HEN hospitals through the PassKey collaborative website.
- Continue to share trended individual hospital and aggregate data results directly with hospitals through workbooks, newsletters, one-on-one calls, and in-person regional meetings.
- Encourage new PA-HEN hospitals and/or new SSI prevention team members to access the archived webinars on the PassKey collaborative website.

Resources—All PA-HEN facilities will have access to the toolkit and best practices guidance for prevention of SSIs through the PassKey collaborative website. Current literature will be updated monthly for the collaborative website. All webinars will be archived and available for use by all PA-HEN facilities. These resources will help support on-boarding of any new hospitals. The Minnesota HEN and QIP have used the archived PA-HEN webinars to work with hospitals in programs they are providing. PA-HEN will continue this collaborative use of resources.
Surgical Site Infections cont’d

Measures and Evaluation—Outcome measures are entered monthly in NHSN. Process measure data is collected daily by operating room staff and entered monthly into the PHCQA data portal.

The dissimilar nature of NHSN surgical site reporting elements (numerator vs. denominator) remain a challenge as there is often at least a three month lag period for the denominator data (procedure level data). In Pennsylvania, hospitals are required by state law to report infections (i.e., numerator data) within 24 hours of confirmation.

PA-HEN shares individual hospital data on a bimonthly basis in the workbooks. The individual hospital data also is available monthly on the data reports portal and is shared in aggregate in bimonthly newsletters, monthly PA-HEN reports, on coaching calls, and at regional APIC chapter meetings.

Organizational assessments are used by all new facilities joining the immersion project to help them shape an effective action plan. Education evaluations are used on a quarterly basis to assess participating hospitals’ continuing educational needs.

Project deliverables are evaluated monthly to enable follow-up calls with hospitals that are delinquent in data reporting. Goal analysis in the aggregate occurs monthly and project managers contact low performing hospitals that are struggling to achieve success to assist in modifying action plans.

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<tr>
<th>Summary of Outcome and Process Measures for Surgical Site Infections</th>
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<tbody>
<tr>
<td><strong>Outcome Measures</strong></td>
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<tr>
<td>Surgical site infections (SSI) per 100 targeted surgeries</td>
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<tr>
<td>SSI for HPRO &amp; KPRO per HPRO &amp; KPRO surgeries combined</td>
</tr>
<tr>
<td>SSI for six benchmarked procedures (HPRO, KPRO, HYST, CARD, CBGB &amp; CBGC) per 100 benchmarked procedures combined</td>
</tr>
<tr>
<td><strong>Process Measures</strong></td>
</tr>
<tr>
<td><em>Staphylococcus aureus</em> screening to identify colonized patients</td>
</tr>
<tr>
<td>Pre-operative treatment of MRSA &amp; MSSA with mupirocin ointment to nares (nasal iodine may be used in lieu of)</td>
</tr>
<tr>
<td>CHG soap for pre-operative bathing for the morning of and night before surgery by the patient and again in pre-op holding</td>
</tr>
<tr>
<td>Alcohol based surgical prep use, unless contraindication is documented</td>
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Central Line-Associated Blood Stream Infections

Accomplishments—During the first two years of the PA-HEN contract:

- **HEN-wide** results show a 6 percent overall reduction in all hospital units (including ICU, NICU, PICU, medical/surgical, and specialty care areas—oncology, dialysis, transplant, and burn). There also has been a 6 percent decrease in line utilization in all units.
- **Immersion** project results currently reflect a one percent increase from baseline with an overall improvement in 64 percent for immersion hospitals.
- **Process Measures**- More than 70 percent of the participating hospitals have reached a compliance rate of 90 percent or greater.
- A CLASBI baseline organizational assessment was sent to participating hospitals to ascertain knowledge needs. All participating hospitals received a toolkit with best practices.
- The PassKey collaborative website was populated with evidence-based literature, archived webinars, and protocols and policies.
- There were 12 CLABSI prevention webinars that covered a range of topics, including best practices, biofilm, INS and CDC standards, product evaluation, data interpretation, data analysis, surveillance issues, and targeted prevention in the NICU.
- Coaching calls were used to drill down regarding lapses in protocols and participating hospitals shared the methods they used to overcome barriers.
- CLABSI data workbooks were sent to hospitals and the data was reviewed. The workbooks provided trends in CLABSI rates, as well as utilization and compliance with both insertion and maintenance of lines.
- Project staff conducted one-on-one calls to examine challenging issues.
- Invitations to join the project were sent to any PA-HEN hospitals not already in the immersion project experiencing a CLABSI.
- PA-HEN participated in the regional APIC chapter meetings to spread results, facilitate networking and collaboration between participating hospitals, and to recruit new hospitals to the project.
- Hospitals experiencing difficulty with implementation of the CLABSI bundle were mentored by PA-HEN high-performing hospitals.

The Opportunity for Year Three—Because of early collaborative projects and public reporting of CLABSI in Pennsylvania, there already had been an aggregate reduction by 44 percent of CLABSIs in hospitals between 2008 and 2010. Most of this reduction occurred as a result of the adoption of a central line insertion checklist based on best practices as identified by the Institute for Healthcare Improvement.

PA-HEN is targeting low-performing hospitals for recruitment in the Year Three immersion project. PA-HEN will work collaboratively with the Pennsylvania Department of Health, which is responsible for public reporting of health care-associated infections in Pennsylvania, to encourage hospitals experiencing CLABSIs to participate in the immersion project.

PA-HEN will continue to focus on addressing barriers to effective line maintenance and sustaining long-term commitment by hospitals to achieve and sustain “zero” CLABSI, including addressing defects in insertion before an infection occurs. PA-HEN also will work with APIC and other HENs to investigate opportunities for successful practices that can be deployed in Pennsylvania to achieve the PfP goals during the coming year.

Education and Information—PA-HEN plans to:

- Quarterly CLABSI prevention webinars utilizing national faculty. Webinars will be archived and made available to all PA-HEN participating hospitals through the PassKey collaborative website.
- Conduct coaching and networking calls quarterly to address collaboration, spread, and sustainability of evidence based best practices on line maintenance.
- Use more one-on-one calls and information sharing through networking calls to engender engagement and action to address identified barriers in achieving effective line maintenance.
Central Line-Associated Blood Stream Infections cont’d

• Share results and successful strategies, policies and procedures, and current literature focused on evidence based practices through the bimonthly newsletter and the PassKey collaborative website.

• Plan an educational session that includes at least one patient or family member who can speak to their experience to highlight why hospitals must relentlessly focus on CLABSI prevention.

• Continue collaborating with QIP and the hospitals that participated in HAP’s Comprehensive Unit-Based Safety Program to reduce CLABSI to identify best practices.

• Continue to use the PassKey collaborative website and PHCQA (the data portal) for data analysis, sharing of literature, policies and protocols, etc.

• Continue to collaborate with APIC to engage hospitals in education and networking during regional chapter meetings.

Technical Assistance—PA-HEN will offer the following technical assistance to support CLABSI reduction:

• Engage high performing hospitals in the HEN to speak on coaching calls and to serve as mentors to low-performing hospitals.

• Use one-on-one calls to discuss data trends after the data workbooks are sent out. This has helped in identifying some common causes of barriers.

• Identify and match hospitals similar in size and geography to facilitate discussion to address challenges.

• Post team rosters on the collaborative website to encourage outreach to other facilities in the immersion project.

• Encourage hospitals to use the archived webinars on the PassKey collaborative website to assist in education and orientation on CLABSI prevention with new staff.

• Make one-on-one coaching available upon request, as well as targeting hospitals with elevated CLABSI rates that are struggling to move forward.

Resources—PA-HEN will update the PassKey collaborative website with current literature on evidence-based practices on a monthly basis and will archive all educational webinars. PA-HEN’s CLABSI toolkit and best practice guidelines are accessible to all PA-HEN hospitals and hospitals joining PA-HEN in Year Three will be sent this material. All PA-HEN resources will be available to other HENs as a means of helping to drive change where current efforts have not been successful.

Measures and Evaluation—Outcome measurers are entered monthly into NHSN. Process measures are collected weekly, monthly, or quarterly for both critical care and non-critical care units.

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<td><strong>Outcome Measures</strong></td>
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<tr>
<td>CLABSI rates per 1000 line days for ICU and house wide</td>
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<tr>
<td>Device utilization ratio (central line days/patient days)</td>
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<tr>
<th><strong>Process Measures</strong></th>
<th><strong>Data Repository</strong></th>
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<tr>
<td>Insertion practices (all elements of the insertion checklist)</td>
<td>PHCQA</td>
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<tr>
<td>Maintenance practices (both line and dressing)</td>
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The dissimilar nature of NHSN CLABSI reporting elements (numerator vs denominator) remain a challenge as there is often at least a two-month time lag period for denominator data. In Pennsylvania, hospitals are required by state law to report infections (i.e., numerator data) within 24 hours of confirmation.

PA-HEN will share individual hospital data monthly with hospitals on the data reports portal and in the aggregate with all participating hospitals through newsletters, monthly reports, coaching calls, and at regional APIC chapter meetings. Education evaluations will be used to assess continuing educational needs for the Year Three period.
Ventilator-Associated Events

Accomplishments—During the first two years of the PA-HEN contract:

• **HEN-wide** results showed a 9 percent overall reduction in ventilator-associated pneumonia (VAP) through February 2013.
• **Immersion** results reflect a 63 percent reduction in ventilator-associated pneumonia (VAP) in February 2013.
• **Process Measures**—Daily process measures include: use of CASS tube and oral care with and without chlorhexidine, HOB elevation, spontaneous awakening trial and spontaneous breathing trial (SBT). Current data shows improvement in most areas.
• **Co-led** the immersion project with Johns Hopkins Armstrong Institute for Patient Safety, and in collaboration with the Maryland Hospital Association, to deploy the following strategies:
  • VAP baseline organizational assessment was conducted to ascertain knowledge needs and a structural assessment survey was conducted to ascertain unit practices.
  • A baseline safety assessment was conducted.
  • Use the Science of Safety video to educate immersion project team members.
  • Content/coaching calls held twice a month.
  • Collection of process measures daily. The process measures include head of bed elevation, mouth care with and without chlorhexidine, continuous airway subglottic suctioning, spontaneous awakening, and breathing trials.
  • Use of CE City collaborative website that included evidence-based literature, archived webinars, competencies, protocols and policies, and networking.
  • Conducted the following:
    • In-person kick-off meeting.
    • Six CUSP on-boarding calls.
    • Monthly infection prevention meetings to review the new surveillance definitions.
  • Twelve VAP prevention webinars covering such topics as best practices, Hospital Survey on Patient Safety, early mobility, portal navigation, and CUSP principles.
  • Twelve coaching calls to support hospitals in moving the project forward.
  • One-on-one calls with hospitals delinquent in data reporting and/or opportunities for improvement.
  • Participation in APIC regional chapter meetings to foster networking, sharing of results, recruitment of new hospitals, and collaboration.
  • Issued information to all HAP member hospitals, including CEOs, on the new surveillance definition for VAEs, education, and an invitation to participate in the VAP immersion program.

The Opportunity for Year Three—

Pennsylvania hospitals had only experienced a modest decrease in VAPs prior to 2010, largely as a result of adopting a daily VAP checklist of best practices. PA-HEN worked with the Johns Hopkins Armstrong Institute and achieved additional decreases. Clearly leveraging additional reductions is challenging, and Johns Hopkins is working to identify processes that are evidence-based to decrease VAEs. While the VAP bundle checklist is still relevant, Johns Hopkins is looking at the use of early mobility and low tidal volume ventilation strategies.

In addition, in March 2013, NHSN changed the surveillance definitions and established definitions for ventilator-associated events (VAE), which includes ventilator-associated conditions (VAC), infection-related ventilator association conditions (IVAC), possible and probable VAPs (PoVAP and PrVAP). Baselines for these events have yet to be determined. Given these changes and the diverse nature of Pennsylvania hospitals, there are opportunities to develop strategies, tools, and resources to decrease ventilator-associated events.
Ventilator-Associated Events cont’d

Education and Information—PA-HEN plans to:
- Use of semi-annual APIC regional chapter meetings to encourage continued collaboration, spread, and use of evidence-based practices.
- Continue offering one content call and one coaching call a month.
- Continue to share results and successful strategies through the collaborative website and in the bimonthly newsletter.
- Continue working with the Johns Hopkins Armstrong Institute, and in collaboration with the Maryland Hospital Association, as well as national Model Spinal Cord Injury facilities.

Technical Assistance—PA-HEN will offer the following technical assistance to support VAE reduction:
- One-on-one calls to discuss data trends and opportunities for improvement.
- Identification of hospitals willing to share successful strategies in addressing barriers.
- Access to CE City, Johns Hopkins’ collaborative website to enable the sharing of evidence-based literature, policies, protocols, archived webinars, etc.
- In collaborating with the Maryland Hospital Association and Johns Hopkins Armstrong Institute identify additional resources for use in assisting low performing hospitals in achieving success.

Resources—As strategies are refined by Johns Hopkins Armstrong Institute, PA-HEN will share these strategies HEN-wide. This project uses CE City, Johns Hopkins’ collaborative website to enable information and resource sharing amongst hospitals. PA-HEN also will use emails, newsletters, and APIC regional chapter meetings to share data results and availability of evidence-based resources. HAP, the Maryland Hospital Association, and Johns Hopkins Armstrong Institute have made tools and resources available to other HENs. This will continue in Year Three.

Measures and Evaluation—Outcome measures are entered monthly into NHSN. Like other HAIs, there is the dissimilar nature of NHSN reporting elements (numerator vs. denominator) that need to be addressed by PA-HEN with this project. Process measure data for adult ventilated patients is collected daily and entered into the CE City data portal.

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<tr>
<th>Summary of Outcome and Process Measures for Ventilator-Associated Events</th>
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<td><strong>Outcome Measures</strong></td>
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<tr>
<td>VAP per 1000 vent days through 2/2013</td>
</tr>
<tr>
<td>VAE (VAC, IVAC, PoVAP and PrVAP) per 1000 vent days starting 3/2013</td>
</tr>
<tr>
<td><strong>Process Measures</strong></td>
</tr>
<tr>
<td>Daily process measures include: head of bed elevation, mouth care, use of CASS, SAT and SBT</td>
</tr>
<tr>
<td>Daily collection of mobility measures</td>
</tr>
</tbody>
</table>
Catheter-Associated Urinary Tract Infections

Accomplishments—During the first two years of the PA-HEN contract:

- **HEN-wide** results show that despite a 9 percent decrease in catheter utilization on all units combined and 12 percent decrease in utilization in critical care units, there has been a 19 percent increase in CAUTIs on all hospital units (includes ICU, NICU, PICU, medical/surgical, and specialty care units, such as oncology, dialysis, transplant, and burn).
- Issued information on CAUTI best practices to all PA-HEN participating hospitals, including to hospital CEOs.
- Conducted two CAUTI webinars open to all PA-HEN hospitals.

The Opportunity for Year Three—CAUTI remains one of the most frequently reported HAIs. While data from the NHSN reflects that statewide there was a 9 percent reduction in CAUTIs from 2010 to 2012, there has been a 24 percent increase in CAUTIs since the beginning of 2013. This trend is being seen across the nation. It is unclear whether the increase correlates to the change in the surveillance definition that occurred on January 1, 2013.

HAP, through a separate project under the HRET using funding from the AHRQ, worked with 10 hospitals to reduce CAUTIs using the Comprehensive Unit-based Safety Program (CUSP) approach. Findings from this project indicated that hospitals which focused on improved practices in the emergency department regarding insertion experienced the most significant declines in CAUTI rates. This is consistent with the literature findings that reflect the need for hospitals to establish protocols and interventions to decrease unnecessary placement of urinary catheters by identifying and deploying interventions that address removal of unnecessary urinary catheters at the earliest possible moment.

Because of the HAP CUSP-CAUTI project and QIP’s CAUTI project during 2010–2012, PA-HEN did not establish an immersion project. PA-HEN did report on HEN-wide CAUTI trends during the base contract period. Given the trends in CAUTI rates, in Year Three, PA-HEN has established an immersion project and is offering it to all PA-HEN hospitals. The project includes:

- A CAUTI baseline organization assessment of hospital practices.
- Issuance of a toolkit that incorporates interventions and resources to achieve the most rapid and sustained improvement.
- Use of monthly audits by participating hospitals of both critical and non-critical care units. If a hospital achieves greater than 90 percent compliance in all parts of the CAUTI audit bundle for three months, they can move to quarterly audits. While the immersion project will be completed December 2014, PA-HEN will recommend that hospitals continue audits as part of sustainability plans.
- Monthly targeted webinars and coaching/networking calls. PA-HEN will identify hospitals with success stories in reducing CAUTIs and share those stories HEN-wide.
- Establishment of a CAUTI collaborative website populated with evidence-based literature, archived webinars, and hospital policies and procedures.
- Adjustment of protocols to address the needs of acute care, rehabilitation, critical access, oncology, adult patient populations, etc. to make sure that hospitals have the resources to address unique patient population needs.
- Collaboration with Pennsylvania’s Association of Professionals in Infection Control and Epidemiology (APIC) regional chapters to conduct education and networking sessions.
- One-on-one calls will be used to troubleshoot issues with hospitals struggling to achieve progress or experiencing other challenging issues.
Catheter-Associated Urinary Tract Infections cont’d

Education and Information — PA-HEN plans to:

• Use semi-annual regional APIC chapter meetings to encourage collaboration and spread of evidence based practices.

• Post CAUTI team rosters on the PassKey CAUTI collaborative website to encourage outreach between facilities engaged in the immersion project.

• Use national faculty to provide a CAUTI prevention webinar each quarter during Year Three.

• Share results, success strategies, polices and protocols, and current literature with PA-HEN participating hospitals through the PassKey collaborative website and bimonthly newsletter.

• Collaborate with QIP to identify insights/lessons learned as a result of the QIO’s 10th scope of work CAUTI project.

Technical Assistance — PA-HEN will offer the following technical assistance to support CAUTI reduction:

• Engage high performing hospitals in the HEN to speak on coaching calls and to address successful nurse driven catheter protocols.

• Use of one-on-one calls to discuss data following issuance of data collection workbooks.

• One-on-one calls also will be conducted with facilities identified as having elevated CAUTI rates. Assistance to these facilities may include guidelines, best practice literature, one-on-one coaching, targeted webinars, and mentoring.

• Identify and match hospitals similar in size and geography to facilitate discussion to address challenges.

• Work collaboratively with the QIP to identify resources and success strategies.

• Encourage struggling hospitals to avail themselves of the archived webinars and other resources maintained on the PassKey collaborative website.

Resources — PA-HEN is developing a CAUTI toolkit, which will incorporate best practice guidelines and will disseminate the toolkit HEN-wide. PA-HEN will update PassKey collaborative website with current literature on evidence-based practices on a monthly basis and will archive all educational webinars. All PA-HEN resources will be available to other HENs.

Measures and Evaluation — Outcome measures are entered monthly into NHSN. Process measure data is collected monthly and entered by hospitals into the PHCQA data portal. Process measures are collected for both critical care and non-critical care patient units.

The dissimilar nature of NHSN CAUTI reporting elements (numerator vs denominator) remain a challenge as there is often at least a two-month lag period for denominator data. In Pennsylvania, hospitals are required by state law to report infections (i.e., numerator data) within 24 hours of confirmation.

<table>
<thead>
<tr>
<th>Summary of Outcome and Process Measures for CAUTI</th>
</tr>
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<tbody>
<tr>
<td>Outcome Measures</td>
</tr>
<tr>
<td>CAUTI rates per 1000 Foley days for both ICU and house wide</td>
</tr>
<tr>
<td>Device utilization ratio (CAUTI days/patient days)</td>
</tr>
<tr>
<td>Process Measures</td>
</tr>
<tr>
<td>Appropriateness of Foley per hospital protocol</td>
</tr>
<tr>
<td>Number of days since insertion</td>
</tr>
<tr>
<td>Catheter securement</td>
</tr>
<tr>
<td>Drainage bag below level of bladder, but not touching floor</td>
</tr>
</tbody>
</table>

A baseline organizational assessment will be used for all facilities joining the immersion project, regardless of timeframe, as a means to assess overall education needs, as well as hospital-specific technical needs.
Obstetrical Adverse Events

Accomplishments—During the first two years of the PA-HEN contract:

• **HEN-wide** results reflect an aggregate downward trend in early-term, non-medically indicated elective deliveries (EED) over the last year. The goal of an EED rate of less than 5 percent was achieved in the last three quarters of the project.

• **Immersion** project results reflect a 91 percent improvement by hospitals in reducing the rate of EEDs from baseline.

• **Process Measures**—Improvement by 43 percent compliance with the implementation of the Institute for Healthcare Improvement’s (IHI) induction bundle, reflecting a commitment to safely and appropriately inducing labor.

• Achieving rates between 86-92 percent compliance with the implementation of the IHI’s augmentation bundle (to assess safe administration of oxytocin).

• PA-HEN shared evidence-based best practices and tools and resources related to post-partum hemorrhage, as well as implementing checklists, technologies, simulation drills to address this issue.

• PA-HEN reached out to all hospitals with obstetrics units that were not participating in the obstetrics adverse event immersion project to determine the status of data collection at the facility on EEDs and to provide technical assistance on collecting and reporting the PC-01 measure.

• While HEN-wide and the immersion project demonstrated significant improvements (particularly in reducing non-medically indicated EED), there remains opportunity to leverage shared knowledge and accelerate improvement in reducing OAEs. Year Three priorities will include:
  • Preventing non-medically indicated early elective deliveries.
  • Reducing the risk of post-partum hemorrhage (PPH)—the leading cause of maternal mortality in the United States.
  • Treatment and management of pre-eclampsia to prevent morbidity and mortality.

The Opportunity for Year Three—Year Three will include building on engagement of patients and families that began during the first two years of the project; addressing health care disparities that impact that obstetrical care; and continuing work with the Pennsylvania Department of Public Welfare (the state’s Medicaid agency) and Department of Health, as well as other key stakeholders (March of Dimes, health insurers, and organizations of obstetric health professionals) to prevent obstetrical adverse events.

Education and Information—PA-HEN plans to:

• Conduct:
  • A two-part webinar series addressing obstetrical adverse events.
  • Networking calls related to EED and PPH to share best practices, strategies, and barriers to improvement.
  • A two-part webinar series featuring best practices in the diagnosis and management of PPH.
  • A three-part webinar series—one addressing measurement of pre-eclampsia and two featuring evidence-based practices to prevent pre-eclampsia.

• The analysis of self-assessment tools and the results of qualitative surveys regarding PPH and prevention of pre-eclampsia will be shared with participating hospitals, as well as being posted on PassKey collaborative website.

• PA-HEN will participate in the PfP Maternal Care Affinity Group sessions to share success strategies and learn from experts and other HENs regarding best practices and strategies.

Technical Assistance—PA-HEN will offer the following technical assistance to support prevention of OAEs:
Obstetrical Adverse Events cont’d

- **EED**—Identify EED low performing hospitals and provide resources (including a mentor hospital and one-on-one calls).
- **PPH**—In support of diagnosing and managing PPH, the following will be continued in Year Three:
  - Development of standardized PPH tools, including risk assessment and PPH management checklists.
  - Developing strategies for community hospitals to partner with tertiary facilities to facilitate quicker transfers of patients diagnosed at-risk for PPH.
  - Improving the incorporation of patients and families in prenatal planning for the management of PPH.
- **Pre-eclampsia**—Provide technical assistance:
  - Identify top and low performing hospitals.
  - Recruit top performing hospitals to serve as mentors and potentially serve as best practices presenters on a webinar or networking call.
  - Identify and contact low performing hospitals on prevention of pre-eclampsia and provide resources (i.e., mentor and one-on-one calls).

**Resources**—All tools and resources developed during the first two years of the project are available on a collaborative website through PassKey. Additional tools for PPH and pre-eclampsia will be developed and shared with all hospitals with obstetrics units through PassKey.

**Measures and Evaluation**—
The PC-01 measure for EED is reported by all PA-HEN participating hospitals with obstetrics units. PA-HEN is obtaining an analysis of the PSI-17 birth trauma outcome measure from PHC4 for PA-HEN participating hospitals with obstetrics units. The outcome and process measures for PPH are collected from hospitals participating in the immersion project. PA-HEN’s OAE advisory panel will develop outcome and process measures for pre-eclampsia prevention.

<table>
<thead>
<tr>
<th>Summary of Outcome and Process Measures for Obstetrical Adverse Events</th>
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<tbody>
<tr>
<td><strong>Outcome Measures</strong></td>
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<tr>
<td>PC-01 Measure</td>
</tr>
<tr>
<td>PSI-17 Birth Trauma</td>
</tr>
<tr>
<td>Percent of deliveries &gt;= 20 weeks gestation that were transfused with 1-2 units of any blood product during the birth admission</td>
</tr>
<tr>
<td>Percent of deliveries&gt;=20 weeks gestation that were transfused with &gt;2 units of blood product during the birth admission</td>
</tr>
<tr>
<td>Pre-eclampsia treatment and management (being determined)</td>
</tr>
<tr>
<td>Percent of inductions in which all 5 IHI induction bundles components are documented</td>
</tr>
<tr>
<td>Percent of patients in which PPH checklist is completed</td>
</tr>
<tr>
<td>Pre-eclampsia treatment and management measure (being determined)</td>
</tr>
</tbody>
</table>
Falls Prevention

Accomplishments—During the first two years of the PA-HEN contract:

• **HEN-wide**, at the unit level, there has been a current decrease of 35 percent in falls with harm per 1,000 patient days in acute care hospitals from baseline.

• **HEN-wide**, at the facility level, there has been a current decrease of 32 percent in falls with harm per 1,000 patient days in acute care hospitals from baseline.

• **Immersion** project current results reveal 34 percent reduction in falls with harm per 1,000 patient days at the unit level.

• **Immersion** project current results reveal a 29 percent reduction in falls with harm per 1,000 patient days at the facility level.

• **Process Measures**—Falls assessment completed an average of 95 percent compliance, patients at risk for falls with assessment completed and prevention strategy in place – 98 percent compliance.

• The use of a falls risk assessment by general acute care hospitals increased by approximately 13 percent since July 2012.

• PSA was able to standardize the definition of falls and falls with harm for hospitals participating in the project. PSA also developed the PA-PSRS falls reporting program that along with the standardized definition, provides an avenue for hospitals to report denominator data for purposes of calculating rates, analyzing their data on falls, and benchmarking their performance with peer groups and on a statewide basis.

• There were:
  • Fifteen educational webinars, including presentations by experts in falls prevention and sharing of best practices by hospitals in PA-HEN.
  • Five coaching calls that included discussions about barriers, successes, and overall project updates.
  • Seven in-person regional meetings to provide collaborative learning opportunities, including hospital presentations, facilitated discussions, and networking.
  • PSA conducted consultative site visits for 71 percent of the hospitals participating in the immersion project.
  • PSA also facilitated six behavioral health workgroup meetings, to provide collaborative learning opportunities and networking to address this special populations needs as related to falls prevention. Topics have included post fall huddles, use of alarms, medication use, and risk assessment focused on behavioral health patients.
  • Developed and administered an evidence-based self-assessment tool which was completed by hospitals in the immersion project in July 2012 and July 2013. There was 100 percent completion of the tool in 2012, and 93 percent completion in 2013. PSA analyzed the results and shared them with participating hospitals.
  • Developed an action plan template and provided guidance to hospitals on creation and use of their action plan.
  • Developed quarterly:
    • Point prevalence audit tool and provided an analysis of results to hospitals enabling the hospital to compare facility results with aggregate project results.
    • Performance reports to enable hospitals to view their falls with harm rates and CMS scoring value.
  • Issued a newsletter—*Falls Pacing Update*—which is published every two weeks highlighting upcoming events, discussions on PassKey, questions posed by hospitals, new resources, and evidence-based literature.
  • Engendered collaboration among hospitals which also fostered hospital active participation in presenting on webinars, coaching calls and at in-person regional meetings. Hospitals had the opportunity to discuss their accomplishments and the barriers they needed to address in reducing and preventing falls.
The Opportunity for Year Three

In Pennsylvania, in 2011, facilities reported 35,640 fall events into PA-PSRS, of which 1,210 had high enough harm requiring additional health care to be classified by PA-PSRS as serious events. Despite the reductions in falls with harm by nearly 35 percent HEN-wide, falls remain a significant patient safety challenge. PA-HEN’s focus for Year Three is to achieve the 40 percent reduction PfP goal through:

- Collaborating with other HENs to share best practices and tools to assist hospitals in reducing falls.
- Developing a more robust mentor program to assist hospitals in PA-HEN.
- Conducting webinars with national experts to address leadership and team engagement in falls prevention.
- Collaborating with HAP and the other PA-HEN partners to incorporate education for participating hospitals on health care disparities, safety culture, and patient and family engagement.

Additional opportunities during Year Three include:

- Addressing turnover in the falls team leader at hospitals by assisting hospitals to transition new leaders to a role on the facility’s fall team and with the PA-HEN falls project.
- Developing additional tools and resources to assist hospitals in achieving spread and sustainability of falls prevention, as well as identifying mentor hospitals and working with them to assist other hospitals in the project in reducing falls and achieving spread and sustainability house wide.
- Continuing the behavioral health workgroup to address this unique patient population’s needs in falls prevention.

Technical Assistance

PA-HEN will offer the following technical assistance to support prevention of falls:

- Site visits in which the PA-HEN project manager meets with the falls prevention team leader and the full falls team to discuss their program, offer support, and one-on-one education.
- Use a formal peer-to-peer mentoring program to assist low performing hospitals.
- Provide guidance on data entry, report generation, use of audit tools, and how to best use PassKey resources.
- Facilitate a multi-HEN medication and falls workgroup and continue the behavioral health workgroup.

Education and Information

PA-HEN plans to:

- Make the self-assessment tool and audit tools available to all PA-HEN hospitals, which will help structure education and information needs for Year Three. These tools have already been shared with other HENs to support their efforts as well.
- Focus on creating and disseminating additional tools to assist hospitals with event investigation, patient and family engagement in preventing falls, leadership engagement to sustain effective programs, and medication review.
- PSA found during the first two years of the project that in-person regional meetings were most highly evaluated programs by immersion project participants and will offer two regional meetings in western Pennsylvania and two in the eastern part of the state.
- Offer educational webinars on leadership engagement, team engagement, and spread and sustainability of success.
- Continue to use spread and sustainability tools from the Institute for Healthcare Improvement and Healthcare Improvement Scotland, and will share these tools at in-person regional meetings and/or during webinars.
- Collaborate with other HENs in Year Three to share information and identify national speakers to provide hospitals with more resources and education. Specific topics that may be addressed include medications and falls reduction, behavioral health falls, and patient and family engagement in falls prevention.
- Collaborate with QIP to develop and present a spread and sustainability webinar.
Falls Prevention cont’d

Resources—The PassKey collaborative website will be maintained for the falls reduction and prevention project and hospitals participating in PA-HEN will be encouraged to use the website to discuss topics, share documents, access summary reports, and access the calendar of PA-HEN educational events. The newsletter—Falls Pacing Update—will be distributed every two weeks to provide quick updates to project teams and their executive sponsors.

Measures and Evaluation—Hospitals participating in the falls project use the PA-PSRS to collect required outcome and process measure data. Hospitals will continue to have the ability to create their own real-time data analysis reports and incorporate peer and statewide benchmarking data.

| Summary of Outcome and Process Measures for Injuries from Falls |
|---------------------------------|-----------------|
| **Outcome Measures**            | **Data Repository** |
| Patient falls with harm per 1000 patient days for general acute care hospitals | PA-PSRS |
| **Process Measures**            | **Data Repository** |
| Completion of falls risk assessment | PA-PSRS |
| Number of “yes” responses that risk assessment was completed and fall precautions/protocols were in place for falls with harm among patients who were assessed and identified at risk per the number of patients (out of all patients who fell) who were assessed and identified at risk |

The aggregate results and improvements are shared with participating hospitals at the regional meetings, as well as updated in monthly and quarterly PA-HEN reports to CMS. Participating hospitals also are provided a process measure audit tool summary and performance report quarterly.

The self-assessment tool will be administered again in July 2014, and results will be compared to previous results to inform hospitals on progress and areas still needing improvement. Participating hospitals will be encouraged to complete quarterly process measure audits and PSA will provide hospitals with audit summary reports.
Wrong Site Surgery Prevention

Accomplishments—During the first two years of the PA-HEN contract:

- **HEN wide**—There was a 22 percent improvement in harm reduction HEN-wide.
- **Immersion** project results reflect 7 percent improvement over baseline for the HEN wrong-site surgery (WSS) immersion facilities.
- **Process Measures** include:
  - Verification of the site mark with the schedule had a 23.3 percent improvement over baseline.
  - Verification of the site mark with the history and physical had a 26.6 percent improvement over baseline.
- Twenty-five Pennsylvania hospitals and two ambulatory centers participated in the WSS immersion project.
- Participating hospitals self-assessed and reassessed implementation of policies and procedures associated with evidenced-based best practice for preventing WSS.
- Conducted the following education programs:
  - Four regional workshops to review analyzed data from assessments, reassessments, and compliance monitoring, as well as to outline evidence-based practices. Participants shared successes, strategies, and barriers.
  - Collaborative coaching sessions to provide teams the opportunities to discuss problems, explore strategies, and insights. These sessions included mentors who had successfully implemented prevention strategies.
  - Team leaders who successfully implemented and sustained best practices served as mentors during teleconferences. PA-HEN found that participants were receptive to peer presentations and appreciated the opportunities to share successes, strategies, and addressing barriers.
- Eleven of the 27 participating facilities participated in onsite surgical observations by the project managers. In addition to these observations, two facilities requested Grand Rounds presentations which were mandatory for surgeons, anesthesiologists, and surgical staff.
- Onsite observations identified opportunities for improved compliance with measures for assessing WSS. These observations were published in the September 2013 *Pennsylvania Patient Safety Authority*, “Quarterly Update on Wrong-Site Surgery: Work to Be Done,” which highlighted these findings:
  - Improper site markings (e.g., made distant to the surgical site).
  - Failure to see and/or point out the site mark in the surgical field.
  - Surgeons not actively empowering the surgical team to speak up regarding safety concerns during the “time-out.”

The Opportunity for Year Three—Wrong-site local and regional anesthesia blocks represent a major portion of wrong-site operating room procedures. Of the 539 WSS events reported through the PA-PSRS between July 1, 2004, and June 30, 2013, 115 (21 percent) were wrong-site blocks. Given that only a fraction of patients who are vulnerable to WSS receive anesthesia in the form of blocks, the proportion of wrong-site anesthesia blocks is more notable. Based on studies through the preventing WSS project, the PSA is advising health care facilities that a formal time-out be done with the anesthesia provider just before an anesthetic block and that another time-out be done with the surgeon just before the incision.

During Year Three, the PSA will focus the scope of the WSS project on preventing wrong-site local and regional anesthesia blocks. The PSA will continue working with the 27 health care facilities in the immersion project and will recruit additional Pennsylvania health care facilities providing surgical services to participate.
Wrong Site Surgery Prevention cont’d

**Education and Information**—PA-HEN plans to:
- Continue using the dedicated and secure password-protected website for the WSS project participating health care facilities as a virtual collaboration forum.
- Host a kickoff webinar to outline the Year Three project year and secure facility leadership support.
- Conduct a series of conference calls and workshops to provide more in-depth, topic specific education and to enable participants to share experiences, identify barriers to best practice implementation, and to enable continual guidance.
- Continue a monthly newsletter to keep participants abreast of the collaboration’s progress and ongoing activities/opportunities.

**Technical Assistance**—PA-HEN will offer the following technical assistance to prevent wrong-site anesthesia:
- Continue the onsite collaborative workshops focused on wrong-site anesthesia prevention. These workshops will consist of an overview of the baseline survey and compliance assessment data results, as well as a didactic presentation on wrong-site anesthesia prevention by leading local, state, and national experts. During these workshops, the project team will facilitate discussion on immediate and long-term practice modification benefits with anesthesia providers and operating room leaders, and will offer guidance and critique on policies and practices addressing:
  - Pre-procedure information verification
  - Marking of the anesthesia and operative sites
  - Verification and time-out for anesthesia and the surgery
- Conduct one-on-one outreach consultations to encourage participating facilities to discuss successes and continued barriers to best practice implementation, including review of specific adverse surgical events. Facility administrators, operating room leaders, anesthesiologists, and surgeons will be encouraged to attend.

**Resources**—There is a collaborative website through PassKey that is accessible to all WSS project participants, as well as other PA-HEN hospitals. The collaborative website includes tools, data analysis information, archived webinars, evidence-based resources, sample forms, checklists, scripts and other tools to share. In addition, the website offers a virtual collaboration forum for participating facilities to network.
Adverse Drug Events

Accomplishments—During the first two years of the PA-HEN contract:

- **HEN-wide** analysis of data for the third quarter of 2013 reflects a 48 percent decrease in ADE associated with opioids from the baseline period.
- **Immersion** project results reflect a 32 percent reduction from baseline in the number of patients receiving naloxone / number of patients on opioids. A reduction from baseline of 61 percent in the current period has been noted in the number of opioid related rapid response team calls.
- **Process Measures**—Current results reflect a 20 percent rate of compliance in assessment of PACU patients receiving opioids. A rate of 17 percent compliance is reflected in the assessment of patients receiving long acting opioids. An eight percent rate of compliance is reflected in the current month for assessment of patients receiving opioids as needed.
- The project evolved from learning about medication safety practices and organization risks associated with opioid use, to making sustainable changes within organizations on the use of opioids and preventing adverse drug events.
- Developed and disseminated a clinician Opioid Knowledge Assessment tool, in collaboration with the Pennsylvania Medical Society and the Pennsylvania Society of Anesthesiology, which was made available to physicians, pharmacists, and nurses in hospitals participating in the ADE project. 1,720 health care professionals participated in the knowledge assessment. The analysis of the assessment was shared with participating hospitals.
- The analysis of the Opioid Organization and Knowledge Assessments revealed:
  - Lower scores in response to questions on determining whether a patient was opioid “naïve,” what types of medications increase the bad effects of an opioid, and critical symptoms of patients that may be harmed from opioid use.
  - Differences in practices within hospitals given their size/geography ranging from critical access hospitals to large academic medical centers.
- The following were conducted:
  - Ten webinar-based educational programs.
  - One-on-one phone calls with each project leader to review progress and organizational challenges, as well as to provide technical assistance.
  - An opioid organizational assessment for hospitals to use to evaluate their current practices around opioid use.
  - A collaborative website was implemented on PassKey to enable monthly data collection and reporting, sharing of resources, posting calendar of events, and resource information to assist hospitals in the project.

The Opportunity for Year Three—For those organizations working on preventing adverse drug events associated with the use of opioids, the project will include:

- Re-assessing practitioners’ knowledge and organizational processes around the use of opioids.
- Spreading availability of tools to prevent adverse drug events associated with opioids HEN-wide.
- Assessing whether health care disparities have an impact on this issue and developing resources, if appropriate, to assist hospitals in addressing any disparities.
Adverse Drug Events cont’d

- Exploring the potential for creating a "Readmissions Prevention Bundle" to be accomplished through the collaboration of the readmissions, patient-family engagement, health disparities, and ADE prevention projects. This will result in a comprehensive and integrated approach to driving further systematic improvements with collectively reducing readmissions, as well as to drive improvements in each of the individual AEs and focus areas.
- Identifying strategies for how organizations can address challenges that were identified through the project, including how to use information technology to capture ADE measures; addressing more timely adoption of standardized policies in multi-hospital systems; securing leadership and practitioner commitment to prevent ADEs; and improving the data collection processes.

Addressing Anticoagulants and Insulin—PA-HEN will address anticoagulants and insulin. According to data from the PSA, the ISMP Medication Errors Reporting Program (MERP), and the MEDMARX database, both anticoagulants and insulin are the most frequently reported high-alert medications to cause patient harm.

Insulin—An analysis of serious event reports to the Pennsylvania Patient Safety Authority shows that of 2,700 medication error reports:
- The predominant medication error event types associated with insulin were drug omission (24.7 percent), wrong drug (13.9 percent) and wrong dose/over dosage (13 percent).
- More than 52 percent led to situations in which a patient may have or actually did receive the wrong dose or no dose of insulin, which could lead to fluctuations in glycemic control.

Anticoagulants—Data from inpatient settings suggest that adverse drug events associated with anticoagulants most commonly result from medication errors, which are highly amenable to prevention. These include duplicate or concurrent therapy, accidental stoppage of therapy, look-alike vials, syringes, and names, dosing and calculation errors, monitoring problems, drug and food interaction, spinal hematoma, and adverse drug reactions.

Education and Information—PA-HEN plans to:
- Conduct onsite presentations on prevention of adverse drug events to enable hospitals to include more practitioners involved in opioid use in the hospital.
- Conduct reassessments using the Opioid Knowledge Assessment and Organization Assessment. This will enable the PSA to schedule calls that bring organizations of similar size and geography together to share information and successful strategies.
- Develop and deploy a clinician knowledge assessment tool regarding anticoagulants and insulin and a related organization assessment tool. The results of these assessments will enable the PSA to offer intensive education and other resources to support hospitals in creating action plans to address prevention of adverse drug events associated with insulin and anticoagulants.

Technical Assistance—The ADE opioid project leader will continue to conduct one-on-one phone calls with hospital project leaders to review their progress, ascertain organizational challenges, and provide technical support. Similar intensive technical support will be provided to hospitals seeking to prevent adverse drug events associated with insulin and anticoagulants. Mentor hospitals will be identified to show the way for other hospitals in addressing challenges and barriers.

Resources—The collaborative workspace on PassKey will be maintained to allow data reporting, sharing of resources and data analyses, accessing publications by the PSA and the ISMP, and networking between hospital teams. PSA will continue collaborating with the Pennsylvania Medical Society and the Pennsylvania Society of Anesthesiologists to identify and share evidenced-based best practices.
Adverse Drug Events cont’d

Measures and Evaluation—
Outcome and process measures will continue to be collected through the PHCQA website.

PSA also will analyze reports to the PA-PSRS regarding preventable adverse outcomes associated with the use of insulin or the use of anticoagulants to ascertain how hospitals in PA-HEN’s ADE project compare to other hospitals. Progress will be evaluated during Year Three, including lessons learned to enable participating hospitals to make adjustments in action plans to achieve success.

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Data Repository</th>
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<tbody>
<tr>
<td>Naloxone reversal related to opioid use</td>
<td>PHCQA</td>
</tr>
<tr>
<td>Rapid Response Team calls related to IV opioid use</td>
<td></td>
</tr>
<tr>
<td>Insulin outcome measures—incidence of blood sugars less than 50 per or greater than 300 per total number of patients receiving insulin</td>
<td></td>
</tr>
<tr>
<td>Number of inpatients prescribed Warfarin with an INR greater than 5 per the number of persons prescribed Warfarin therapy</td>
<td>PA-PSRS</td>
</tr>
<tr>
<td>Number of harmful opioid related serious events.</td>
<td></td>
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<table>
<thead>
<tr>
<th>Process Measures</th>
<th>Data Repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documentation of assessment of - opioid status for patients prescribed opioids in PACU</td>
<td>PHCQA</td>
</tr>
<tr>
<td>- opioid status for patients prescribed long-acting opioids</td>
<td></td>
</tr>
<tr>
<td>Documentation of reassessment of respiratory rate, quality of respirations, level of sedation, and blood pressure for patients on medical/surgical unit with PRN orders for and administered IM or IV opioids</td>
<td></td>
</tr>
<tr>
<td>Process measures will be identified for insulin and anticoagulants</td>
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Venous Thromboembolism

Accomplishments—During the first two years of the PA-HEN contract:

- **HEN-wide** current results reflect a five percent increase in PSI-12 postoperative embolism or deep vein thrombosis. However, it should be noted that 70 percent of PA-HEN participating hospitals have demonstrated at least some level of improvement based on the performance scores.

- **Immersion** project hospitals participating in the VTE prevention project have made improvement in the outcome measure. The percentage of hospital-acquired potentially-preventable VTEs currently shows a 75 percent decrease from baseline data (VTE-6).

- **Process measures** currently reflect the following:
  - Appropriate VTE prophylaxis compliance has improved by 19 percent from baseline.
  - Appropriate ICU VTE prophylaxis compliance has improved by 14 percent from baseline.
  - Use of Warfarin therapy discharge instructions has improved by 13 percent from baseline.

- The following interventions and resources were developed and shared with all VTE immersion project participants:
  - VTE prevention project toolkit—which is a CD containing all tools and resources needed by hospitals to implement the project.
  - Weekly email messages with education information.
  - A fact sheet for VTE data collection, a data collection and submission guide, and a guide for the VTE reports portal.
  - Evidence-based resources from other organizations, including the Health Research and Educational Trust’s *Implementation Guide to Prevention of VTE*; CMS’ *VTE Specification Manual*; Agency for Healthcare Research and Quality’s consumer and clinician summaries.
  - Other resources including tips for implementing a VTE protocol in an electronic health record; Warfarin packet; CTE risk assessment and prophylaxis orders on admission and transfers to ICU, and a VTE prevention “stop sign” poster.

- The following educational programs were conducted:
  - A kick-off face-to-face meeting, as well as a follow-up webinar to engage hospitals in “Putting an End to VTEs.”
  - Quarterly webinars were conducted to support hospitals in the project on such topics as “Using Technology to Help the Clinician Help the Patient,” “VTE Discharge Instructions: Barriers and Solutions,” and “VTE Prevention: Achieving Best Care.” Webinars included faculty experts and enabled hospitals to highlight success stories.

The Opportunity for Year Three—Moving the needle on HEN-wide results for VTE continues to be a challenge. There is opportunity for improvement in VTE prevention for all hospitalized patients and with reducing the number of hospital-acquired potentially-preventable VTEs. There are hospitals in the project that have had success and they will be utilized as mentors to assist low performing hospitals HEN-wide.

Year Three also presents an opportunity for additional emphasis on spread and sustainability. Building on a webinar conducted in 2013, on spread and sustainability, QIP will offer additional educational programming to feature hospitals that had success on sustaining best practices over time.

In addition, QIP will assess data and information related to health disparities and VTE prevention and will develop plan interventions accordingly for dissemination in Year Three.
Venous Thromboembolism cont’d

Education and Information—PA-HEN plans to:
- Conduct four VTE prevention webinars in Year Three. Interdisciplinary teams will be encouraged to participate and the webinars will include mentor hospitals sharing their expertise with VTE prevention. For this project, webinars have been the most effective modality and will be used to sustain engagement in the project in Year Three.
- QIP will collaborate with the PSA to conduct a statewide webinar on spread and sustainability in April 2014.

Technical Assistance—PA-HEN will offer the following technical assistance to support VTE prevention:
- One-on-one assistance will be made available to participating hospitals to discuss challenges and explore solutions.
- QIP will develop a patient education tool describing what patients and families can do to participate in the prevention of VTEs.
- QIP will continue to participate in the national HEN VTE listserv to identify information relevant to PA-HEN hospitals and share that information through the PassKey collaborative website.

Resources—QIP will identify interventions and resources and make them available to all PA-HEN hospitals and will share with other HENs, as applicable. These resources are maintained on the PassKey collaborative website. QIP will continue distributing the weekly email message and VTE prevention quarterly newsletters.

Measures and Evaluation—The immersion project monthly data collection of outcome measures and process measures is through the PHCQA data entry portal and reporting site and will be continued in Year Three. HEN-wide results use PSI-12 as the outcome measure and this data is obtained from PHC4.

Aggregate results are shared with participating hospitals during quarterly webinars and newsletters. QIP will conduct an additional needs assessment to evaluate education, intervention, and resources needed to achieve PfP goals in Year Three.

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<td>Incidence of potentially-preventable hospital-acquired VTE</td>
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