Managing Variation

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Veterans Health Administration

- Largest Integrated Health Care System in the United States:
  - 152 medical centers
  - 951 community-based outpatient clinics
- Healthcare provided to 5.7 million Veterans
- Fully deployed electronic medical record
  - VistA - Veterans Health Information System and Technology Architecture
• Healthcare is different from Health Care
  – **Health Care** is what we strive to provide to individual patients
  – **Healthcare** describes the systems that enable this

• *You can’t have health patients without a healthy healthcare system*
Managing Variation

- Standardize clinical practices
  - An SOP for central line insertion decreases infections
  - Using evidence-based practices reduces ICU mortality
- Managing flow reduces length of stay
- Transparency to inspire - ASPIRE
- Facility “privileging” - Operative Complexity
- A system-wide view of efficiency and quality - SFA
Results: Implementation of Evidenced-Based Practices to Reduce Central Line-Associated Bloodstream Infections (183 ICUs)

Reduction in central line infections

Data: VA Inpatient Evaluation Center
Not for distribution
Results: Reduction of Ventilator-Associated Pneumonia

Reduced Ventilator-associated pneumonia rates

- Mixed ICU
- Coronary Care (CCU)
- Medical ICU
- Surgical ICU
- Medical ICU / CCU

Increased adherence to best practices

- Daily readiness to wean
- Daily Sedation vacation
- Daily Spon breathing trial
- DVT prophylaxis
- HOB elevated 30 deg
- SUD prophylaxis

Data: VA Inpatient Evaluation Center
Not for distribution
Reducing Length of Stay

The Hospital Flow Collaborative (FIX)

Reduction in risk adjusted length of stay in the ICU, 103,000 patients annually *

Cost of ICU day $3500* 0.3 days = $108 million in cost avoidance

Reduction in risk adjusted length of stay in patients admitted to acute care. 500,000 patient annually *

$1500/ day * .5 days = $375 million in cost avoidance
Exhibit 12. Standardized Mortality Ratios for Patients Treated in Veterans Affairs Intensive Care Units

<table>
<thead>
<tr>
<th></th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-hospital mortality</td>
<td>1.44</td>
<td>1.39</td>
<td>1.38</td>
<td>1.17</td>
<td>1.13</td>
<td>1.08</td>
<td>1.02</td>
<td>0.98</td>
<td>0.94</td>
</tr>
<tr>
<td>30-day mortality</td>
<td>1.42</td>
<td>1.38</td>
<td>1.38</td>
<td>1.27</td>
<td>1.22</td>
<td>1.03</td>
<td>1.01</td>
<td>0.99</td>
<td>0.95</td>
</tr>
</tbody>
</table>
### Transparency

**ASPIRE: Safety Data by VISN**

<table>
<thead>
<tr>
<th>Safety Metrics</th>
<th>VA's Aspirational goal</th>
<th>VA's current performance</th>
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</thead>
<tbody>
<tr>
<td>MRSA infection rate</td>
<td>0.71</td>
<td>0.69</td>
</tr>
<tr>
<td>VAP infection rate</td>
<td>0.80</td>
<td>0.79</td>
</tr>
<tr>
<td>CLAB infection rate</td>
<td>1.65</td>
<td>1.63</td>
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<tr>
<td>Composite SCIP</td>
<td>0.99</td>
<td>0.98</td>
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<tr>
<td>Hospital acquired pressure ulcer rate</td>
<td>3.19</td>
<td>3.00</td>
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<tr>
<td>Incorrect Surgery</td>
<td>1.88</td>
<td>1.89</td>
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<tr>
<td>Effectiveness</td>
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<tr>
<td>Efficiency</td>
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<td>Patient-Centeredness</td>
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<tr>
<td>Equity</td>
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</tbody>
</table>

**Aspirational Goals Met**

- Click VISN (01 to 23) to expand
Surgical Complexity Initiative

- **Procedure Infrastructure Matrix:**
  - Designate inpatient surgical programs as standard, intermediate, or complex based on program capabilities

- **Operative Complexity Matrix:**
  - Designate surgical procedures as standard, intermediate, or complex

- **Match facility infrastructure to the procedures performed**
  - Standard VHA Surgical Programs are limited to scheduling standard surgical procedures (14 programs)
  - Intermediate VHA Surgical Programs may perform standard and intermediate surgical procedures (33 programs)
  - Complex VHA Surgical Programs perform standard, intermediate and complex surgical procedures (66 programs)
Surgical Complexity

• Surgical Strategic Plan
  – Each facility and VISN has a consolidated plan for the care and treatment of Veterans who present at any VHA Surgical Program regardless of complexity designation.

• The National Surgery Office is responsible for:
  – Monitoring each VHA Surgical Program for compliance with facility surgical complexity designation.
  – Annual review of the Procedure Infrastructure Matrix and the Operative Complexity Matrix, with authority to modify as deemed appropriate.
Relationship of Efficiency to Quality
SFA – Stochastic Frontier Analysis

Correlation between Clinical Efficiency and Quality (HEDIS & ORYX) by Facility (FY09)

Correlation = -0.168
P = 0.0494

Better Quality is associated with better efficiency