1. Describe organizational approach to patient safety/quality improvement at Vidant Health and Vidant Medical Center

2. Understand how approach is aligned with the national quality strategy

3. Describe critical success factors and outcomes in the VH and VMC quality journey

4. List current and planned quality initiatives at VH and VMC
A little history
A system perfectly designed to achieve…

University Health Systems - Number of Central Line Infections
October 2007 - August 2008

# of infections

Oct-07 Nov-07 Dec-07 Jan-08 Feb-08 Mar-08 Apr-08 May-08 Jun-08 Jul-08 Aug-08
Our playbook

Innovation Series 2009
Seven Leadership Leverage Points
For Organization-Level Improvement in Health Care
Second Edition
Quality definition

- Safe
- Timely
- Efficient
- Effective
- Equitable
- Patient Centered

IOM 2000
Zero events of preventable harm and exceptional experiences for every patient, every time across Vidant Health
What it takes to Improve

• **Will** to change the current system
  
  *Strong positive leadership and a realistic appraisal of the resources and barriers*

• **Ideas** about changes that will improve the system
  
  *And a theory that links changes to outcomes*

• **Execution** of the ideas
  
  *And a way to distinguish successful from unsuccessful changes*
Performance Improvement Methods

Vidant Health Integrated Performance Improvement Model

1. Define the problem and determine alignment with established priorities
2. Form a team using a Charter
3. Identity problem type and determine appropriate performance improvement approach

### Problem Type

<table>
<thead>
<tr>
<th>- Waste, rework, redundancies</th>
<th>- Poor quality &amp; variation</th>
<th>- Poor process</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Poor flow, multiple process steps</td>
<td>- Complex &amp; multiple system interactions</td>
<td>- Lack of standardization</td>
</tr>
<tr>
<td>- Non-value added activities</td>
<td></td>
<td>- Clinical issues</td>
</tr>
</tbody>
</table>

*Example:* ED throughput

| - Reduction of Pressure Ulcers | | Reduction of CLABSI |

### Performance Improvement Approach

#### LEAN
- Eliminate waste
- Improve flow
- Simplify & mistake proof

**Identify Value**
- Voice of customer – identify value vs non-value add activities

**Understand Value Stream**
- Value Stream map, observations, visual story boards

**Eliminate Waste**
- Rapid Improvement events, S S

**Establish Flow**
- Pt Experience Mapping, PDSA Cycles

**Enable Pull** – Supplier and customer requirements built into flow/process

**Seek Perfection** – Continuously strive to eliminate all waste along all value streams to achieve continuous improvement

#### Six Sigma
- Minimize variation
- Eliminate defects
- Establish robust controls to sustain

**Define**
- Establish problem statement, scope, Voice of customer/stakeholders

**Measure**
- Identify current performance baseline, validate measurement system, define capability & stability

**Analyze**
- Identify root causes, validate with data and hypothesis testing, Density Analysis, Fishbone

**Improve**
- Identify improvements based on analysis, PDSA cycles, implement solutions, confirm improvement

**Control**
- Ensure systems & processes are in place to sustain new performance

#### Model for Improvement
- Testing based on theory
- Iterative learning
- Emphasize use of teamwork in improvement

**Establish Aim**
- Define what we are trying to accomplish – What by when?

**Identify measures**
- Identify measures that will tell us if the change is resulting in an improvement (process & outcome)

**Identify changes that will lead to improvement**
- Generate ideas from frontline, research best practices

**Test change**
- PDSA Cycles – test ideas on small scale, modify and as cycles proceed, test over wider range

**Implement & Spread**
- Standardize and make part of day to day operation
Safety at Vidant Edgecombe Hospital

Patient safety is the foundation of our performance efforts.

Our goal is to ensure patient safety in the hospital, which we measure by monitoring and reporting the number of harmful events that occur. The types of harmful events we monitor and work to eliminate are described below.

It is important to compare the number of events with our hospital's annual patient visits data (see below) to get an accurate overview of our safety performance.

<table>
<thead>
<tr>
<th>annual visits (2013)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
</tr>
<tr>
<td>Admissions</td>
</tr>
<tr>
<td>Surgeries</td>
</tr>
<tr>
<td>births</td>
</tr>
<tr>
<td>ED visits</td>
</tr>
<tr>
<td>Outpatient visits</td>
</tr>
</tbody>
</table>

Safety Events

Specific events that we measure and work to reduce are:

Falls resulting in injury

These are events in which a hospital patient suffers injuries in a fall. There are no nationally published statistics on the overall number of falls resulting in injury in hospitals. Our improvement work is focused on eliminating falls with injury, so we track every fall that results in injury. We are working to reduce falls.

<table>
<thead>
<tr>
<th>Number of patients with falls resulting in injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>
Storytelling
Channel Leadership Attention
Oversee Execution
Involve Patients and Families
OUTCOMES

• 62% REDUCTION IN HAI SINCE 2008
• 99% OPTIMAL CARE ON CORE MEASURES FOR ALL 9 HOSPITALS COMBINED (UP 20 PERCENTAGE POINTS SINCE 2007)
• FINANCIAL IMPACT IN FY 12 = $1,811,650
• SYSTEM-WIDE HCAHPS PATIENT EXPERIENCE AT TOP TWENTY PERCENT
Critical success factors

• Transparency
• Engaging front line
• Putting a face on the numbers
• Engaging patients-families
• Leadership accountability
• Board oversight
Current quality priorities

- Harmful event reduction
- Optimal care
- Patient experience
- Readmission reduction
- Mortality reduction
Specific Projects

• Discussion of projects at VMC
Physician Engagement

- How do you get involved?
Evolving quality agenda
### The Financial Imperative

<table>
<thead>
<tr>
<th>Medicare Payment Reform Program</th>
<th>Revenue Impact to Vidant Health (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Annual Payment Update</td>
<td>11.3</td>
</tr>
<tr>
<td>Value Based Purchasing</td>
<td>2.5</td>
</tr>
<tr>
<td>Readmission Reduction</td>
<td>1.4</td>
</tr>
<tr>
<td>Meaningful Use</td>
<td>10.3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>25.5</strong></td>
</tr>
</tbody>
</table>
Impact of System Growth

Vidant Health 2006

Vidant Roanoke Chowan
Vidant Bertie
Vidant Chowan
Vidant Medical Center
Outer Banks

Vidant Health Hospital
Impact of System Growth

Vidant Health 2014

[Map showing locations of Vidant Health facilities]
National Quality Strategy

- Better Care
- Healthy People and Communities
- Affordable Care
Better Care
- Establish safety as a core value
- Manage transitions
- Apply leadership methods
- Engage physicians

Healthy People and Communities
- Engage in meaningful partnerships across boundaries
- Enhance education & build health literacy
- Transform primary care

Affordable Care
- Reduce variation in care
- Eliminate waste
- Develop care coordination methods
<table>
<thead>
<tr>
<th>Vidant Health Quality Model</th>
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<td>National Quality Strategy</td>
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**Core Strategies:**
- Reliable Design/Continuous Readiness
- Just Culture
- Transparency
- Patient Engagement
- Disciplined use of PI Methods
A Day in the Life of Vidant Health

- 196 acute care admissions
- 136 surgeries
- 118 critical care patient
- 822 ED visits
- 1,377 outpatient visits
- 2,000 VMG practice visits
- 7 medical air transports
- 21 babies born
- 184 patients with central lines
- 78 patients on ventilators
- 144 patients with urinary catheters
Future Directions

• Highly reliable care

• Perfecting handover of patients from one setting to another

• Improving quality in the ambulatory setting
  – Leveraging what we have learned in the hospital setting