Quality Indicators for Maternal and Child Health Settings

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Educational Objectives

Following the session participants shall be able to:

1. Describe implications for identifying, benchmarking and generalizing nursing quality indicators in maternal and pediatric inpatient and ambulatory settings

2. Discuss ways in which the use of NDNQI in pediatric settings has been beneficial

3. Suggest strategic priorities for NDNQI in relation to maternal and child health quality indicators
Benchmarking

Seven steps in a benchmarking project

1) **Defining** areas and aims for quality improvement

2) **Selecting** partners and constituting a common project

3) **Establishing** measurement methodology and **measuring** outcomes

Benchmarking (cont.)

4) **Comparing** outcomes and **identifying** Best Practices

5) **Analyzing** processes and structures associated with Best Practice

6) **Comparing** internal processes and structures with Best Practices of partners involved in benchmarking

7) **Adopting / Developing** successful processes and structures
Caveats

- We measure what is easiest to measure
- One size seldom fits all
- Deciding on comparison partners is critical.
- Untoward events occur more rarely in children than in adults
Each year approximately 4 million women enter hospitals to give birth. This represents approximately 12% of all hospital discharges.

Children account for 17% of all hospital discharges and 25% of the US population.
# Nurse Sensitive Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>NQF</th>
<th>Pedi-QS (NACHRI/CHCA/MMF)</th>
<th>ANCC</th>
<th>JCAHO</th>
<th>NDNQI</th>
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<tbody>
<tr>
<td>Death among surgical inpatients with treatable serious complications (failure to rescue)</td>
<td>X</td>
<td></td>
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<td>O</td>
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<tr>
<td>Pressure Ulcer Prevalence</td>
<td>X</td>
<td>R</td>
<td>X</td>
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<tr>
<td>Pressure Ulcer Occurrence</td>
<td>R</td>
<td></td>
<td>X</td>
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<tr>
<td>Falls</td>
<td>X</td>
<td>R</td>
<td>X</td>
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<tr>
<td>Falls with Injury</td>
<td>X</td>
<td>R</td>
<td>X</td>
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<tr>
<td>Restraint</td>
<td>X</td>
<td>X</td>
<td>O</td>
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<tr>
<td>Urinary-catheter related UTI for ICU pts</td>
<td>X</td>
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<tr>
<td>Central-line associated BSI for ICU and HRN pts</td>
<td>X</td>
<td>X</td>
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<tbody>
<tr>
<td>Ventilator-associated pneumonia for ICU and HRN pts</td>
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<tr>
<td>Smoking cessation counseling for acute myocardial infarction</td>
<td>X</td>
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<tr>
<td>Smoking cessation counseling for heart failure</td>
<td>X</td>
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<tr>
<td>Smoking cessation counseling for pneumonia</td>
<td>X</td>
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<tr>
<td>Skill Mix (RN, LVN, UAP, contract)</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Nursing Care Hrs per Pt. Day (RN, LVN, UAP)</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Practice Environment Scale – Nursing Work Index</td>
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<td>X</td>
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<tr>
<td>Voluntary Turnover</td>
<td>X</td>
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<tr>
<td>Percentage of Agency/Travelers Worked</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Percent of RN’s with BSN or higher</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Unit vacancy</td>
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<td>X</td>
<td>X</td>
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<tr>
<td>PICU Unplanned Endotracheal Extubation Rate</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>Peripheral Intravenous Infiltration</td>
<td></td>
<td>X</td>
<td>X</td>
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<td>Pediatric Pain Assessment</td>
<td></td>
<td>X</td>
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<td>Patient (Parent) Satisfaction – Nursing Care</td>
<td></td>
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<tr>
<td>Patient (Parent) Satisfaction – Pain Management</td>
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<td>X</td>
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<tr>
<td>Patient (Parent) Satisfaction – Pt. Education</td>
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<tr>
<td>Patient (Parent) Satisfaction – Overall Care</td>
<td></td>
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<td>X</td>
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### Nurse Sensitive Indicators – Specialty Population Considerations

- Limited national databases for specialty populations (pediatrics, maternal-child)
- Analyze studies using NDNQI / non-NDNQI indicators. Compare benefits and challenges.
- Suggest strategies for inclusion / participation
PIV Infiltration – NDNQI Pediatric Specific Nurse-Sensitive Indicator

• Why did we choose this indicator?
  – Increased incidence on IR’s (internal)
  – Included in NACHRI/CHCA/PediQS list of peds indicators (external)
  – Prevalence study methodology simplifies data collection

• Challenges with IR’s:
  – Unreported incidents
  – Accurate calculation difficult (rate based on PIV line days)

• Reported issues with site visibility
  - ED/OR

PIV Infiltration (cont.)

• Data elements added to prevalence study:
  – Site visibility Y/N
  – Use of stabilization devices on catheter Y/N

• Established team/process – multiple levels of RN’s on team, participation from areas other than inpatient (ED, OR, Ambulatory)

• Organizational then unit-based approaches to performance improvement
PIV Infiltration (cont.)

• Results/Benefits/Implications
  - Improvements - 68.4% in PIV infiltration prevalence and 71.9% in site visibility
    – Organizational collaboration: Nurses from all clinical areas / pharmacists / physicians
    – Focused approach and structure to investigation of critical patient care issue
    – Reviewed / revised practice standards and policies
    – Uncovered practice issues involved in delegation, peripheral venous cannulation, PIV management, blood sampling, extravasation management, vesicant classification

PIV Infiltration (cont.)

• Challenges in NDNQI and other database participation and benchmarking efforts:
  – Resource intensive – difficult to secure adequate resources during high census periods
  – Communication of negative results to stakeholders
  – Resistance to practice changes
Patient Falls in Pediatric Settings

- Indicator not included in NACHRI/CHCA collaborative list of NSI’s
- Required by JCAHO as NPSG and by ANCC in Magnet Recognition Program
- Pediatric units not currently eligible to participate in NDNQI falls indicator

Patient Falls in Pediatric Settings (cont.)

- MMP is the only benchmarking source for pediatric falls indicator. Children’s does not currently participate in this database.
- Identified the need to form a collaborative with pediatric Magnet-designated facilities to “benchmark” patient falls results
- Utilized knowledge gained from NDNQI data collection methodologies to develop collaborative benchmarking project
Patient Falls in Pediatric Settings (cont.)

- **Results:**
  - Pediatric fall rate significantly lower than adult populations, but falls do occur and cause injury in children
  - Incidence warrants review of systems issues and care delivery
  - Most falls and related injuries are preventable
  - Parent involvement is key – tremendous educational opportunities needed at every point of access to care
  - Full implementation of fall risk assessment and prevention program decreases patient falls

Patient Falls in Pediatric Settings (cont.)

- **Benefits derived from “Patient Falls” Program:**
  - Decreased falls for inpatient population
    (25.2% - 2005-2006)
  - Developed specific categories for documenting types of falls
  - Developed specific fall-related IR addendum (utilized as prototype for RDE development)
  - Developed injury scoring scale specific for falls
    (traditional IR scoring did not apply well to falls)
  - Strengthened networking with other pediatric organizations through falls benchmarking efforts
  - Supported acquisition of equipment for safe patient lifts/transfers
Patient Falls in Pediatric Settings (cont.)

• Challenges:
  – Statistical issues when using small benchmarking sample (3 organizations) – (see poster presentation for specifics)
  – Calculation of organizational fall rates (inpatient vs. ambulatory areas)

Strategic Priorities

• Use evidence-based decision-making to identify “nurse-sensitive” indicators for perinatal and ambulatory clinical settings to include in NDNQI database

• Explore the most appropriate unit of analysis (unit, department, hospital) for each indicator

• Weigh proprietary interests in data management and benchmarking methods against the need for research “transparency” and communicating best practices
Strategic Priorities (cont.)

• Increase Population – based and Diagnosis – related Indicators/Measures

• Expand Evidence – based Interventions

• Improve Interdisciplinary Team Performance

• Apply Appreciative Inquiry Approach – Study What WORKS and Why

Strategic Priorities (cont.)

• Develop special interest groups within NDNQI for measurement of “population-specific nurse-sensitive” indicators (e.g. pediatrics and obstetrics)

• Develop voluntary networking groups (including a listserv) for collaboration, benchmarking, and sharing best practices
Questions / Comments