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Vice President, Clinical Measures & Research
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2016 Nursing Special Report
The Role of Workplace Safety and Surveillance Capacity in Driving Nurse and Patient Outcomes

New data highlight the strategic importance of nurturing a work environment in which nurses feel their physical and emotional safety is an organizational priority.

Executive Summary
The nurse work environment has been identified as a powerful driver of many of the safety, quality and experience outcomes that hospitals and health systems must optimize in order to be competitive in today’s consumer-driven, value-based health care marketplace. Because the work environment is a multidimensional construct, it must be examined from various angles to understand the specific factors, attributes and processes that exert the strongest influence on performance across outcomes.

This report looks at the impact of the nurse work environment on nurse, patient and pay-for-performance outcomes through two distinct lenses—nurse perception of workplace safety and nurse perception of surveillance capacity, using composite measures that represent attributes of both.
“Unless caregivers are given the protection, respect, and support they need, they are more likely to make errors, fail to follow safe practices, and not work well in teams.”
Why Safety?

SAFETY 360
Taking Responsibility Together

ANA
AMERICAN NURSES ASSOCIATION
Research Questions

- Explore relationships of unit RN surveillance capacity and workforce safety with
  - NDNQI nurse and patient outcomes
  - Patient experience outcomes
  - Publicly reported safety outcomes
Theoretical Model:

**RN Outcomes**
- Make Contribution
- Job Enjoyment
- Intent to stay

**Patient Outcomes**
- RN report of missed care
- RN report of quality of care
- Falls
- Pressure Ulcer

**Patient Experience**
- Nurse Domain
- Issues Domain
- Overall hospital rating
- Likelihood to recommend

**Pay for Performance**
- Hospital Star Ratings
- Hospital acquired condition Penalty
- Readmissions-Heart Failure
- Readmissions-Pneumonia
- Readmission Penalty
- Value based purchasing Score
- VBP experience
- VBP efficiency
- VBP process

**Antecedents:**
(not measured)

- Hospital and Nursing Leadership
- Unit Type
- Unit Nursing Surveillance Capacity
- Nursing Workforce Safety
Nurse Surveillance Capacity

Development of the Hospital Nurse Surveillance Capacity Profile

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Accepted 27 December 2008

Abstract: Better patient outcomes are often achieved through effective surveillance, a primary function of nurses. The purpose of this article is to define, operationalize, measure, and evaluate the nurse surveillance capacity of hospitals. Nurse surveillance capacity is defined as the organization’s features that enhance or sustain nurse surveillance. It includes a set of registered nurses (staffing, education, expertise, experience) and nurse practice environment characteristics. Empirical references were extracted from existing survey data from 9,229 nurses in 174 hospitals. Using a ranking methodology, a Hospital Nurse Surveillance Capacity Profile was created for each hospital. Greater nurse surveillance capacity was significantly associated with better quality of care and fewer adverse events. The profile may assist administrators to improve nurse surveillance and patient outcomes. © 2009 Wiley Periodicals, Inc. See Nurs Health 20:217-226, 2009

Keywords: surveillance; nurse organization; administration; quality of care

The quality of our nation’s health care system has come under scrutiny as evidence grows about preventable medical errors (Institute of Medicine [IOM], 2000, 2001, 2004) and uneven quality of care across hospitals (Bha, Zhang, Orav, & Epstein, 2005). Concurrently, a research base has emerged documenting a link between greater investments in nursing and better outcomes for patients (Kane, Shintani, Shelly, Duvall, & Will, 2007). We hypothesize that better patient outcomes are achieved through more effective surveillance, a primary and vital function of registered nurses (RNs).

Recently, surveillance has achieved prominence in the nursing literature as a feature of failure-to-rescue; the hospital staff’s failure to save the life of a patient who has suffered a complication during hospitalization (Clarke & Aiken, 2005). Researchers have documented a correlation between organizational context of care and failure-to-rescue, positing that the nurse surveillance function is heavily dependent upon human resources decisions made by hospital management (Aiken, Clarke, Sloane, Lake, & Cheney, 2000; Frenz, Lake, Aiken, Sloane, & Sothall, 2006). Although these authors have

Components

- Practice Environment Scale (PES)
  - Collegial Nurse-Physician Relationships
  - Nurse Manager Ability, Leadership, and Support of Nurses
  - Nursing Foundations for Quality of Care
  - Nursing Participation in Hospital Affairs
  - Staffing and resource adequacy

- Percent RNs with BSN, MSN, or PhD
- Percent RNs with specialty nursing certification
- Total number of patients cared for on last shift
- Mean Years on unit

Components

- Safe Patient Handling and Mobility Program - scale score
- RN-RN interactions – scale score
- Appropriate patient care assignment
- % of unit RNs in past 7 days
  - Worked => 60hrs
- % of unit RNs on last shift
  - Worked => 13hrs
  - Worked => 8hrs with no meal break
  - Worked => 8hrs with an appropriate meal break
Framework: Causal Flow

- Forward thinking hospital and nursing leaders support nursing unit practice environments that optimize both nursing surveillance capacity and nursing workforce safety.

- Patient care needs, clinical tasks, nursing role expectations, and social structures vary by unit type, as do threats to nurse and patient safety.

- Leaders who prioritize support for safe nursing work environments provide nurses the conditions necessary to optimize the quality and safety of the care they provide patients.

- Surveillance is a primary nursing function as the intervention by which RNs assess, interpret, and act upon changes in patient status. Surveillance Capacity includes the organizational features that facilitate or hinder surveillance, both unit RN characteristics and the nurse practice environment.

- Better nurse and patient outcomes are associated with higher levels of RN Safety and RN Surveillance Capacity.
The Data

- NDNQI Data for 2015: 8843 units, 732 hospitals
- PG Patient Experience data for 2015
- Public Data

<table>
<thead>
<tr>
<th>Domain</th>
<th>Data Collection Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections and Overall Star Rating</td>
<td>4Q2014 - 3Q2015</td>
</tr>
<tr>
<td>Complications</td>
<td>3Q2013 - 2Q2015</td>
</tr>
<tr>
<td>Readmissions</td>
<td>3Q2012 - 2Q2015</td>
</tr>
<tr>
<td>Pay for Performance (VBP, HAC, Readmission Reduction)</td>
<td>FY 2016</td>
</tr>
</tbody>
</table>
Methods

- Multiple linear regression that included both surveillance capacity and safety composite scores categorized into four quartile groups 1 to 4
- All models controlled for hospital characteristics bed size, teaching status, ownership and metro area
- For patient experience outcomes, additional control variables included aggregate patient characteristics
- NDNQI models were further controlled for unit RN characteristics (% white, % female and mean age), unit size (represented by number of eligible nurses), and survey unit response rate.
- Model results were summarized as the adjusted mean of outcome prediction at each level of a predictor (quartile and/or unit type categories) with all other predictors and control variables were adjusted (fixed at the same level).
Relationship with NDNQI Outcomes
JOB ENJOYMENT

1 = Unit RNs strongly disagree they enjoy their job, 2 = disagree, 3 = tend to disagree, 4 = tend to agree, 5 = agree, 6 = Unit RNs strongly agree they enjoy their job.
MEANINGFUL CONTRIBUTION

Meaningful Contribution Unit Mean Score (1- to 5-point scale)

Quartile Levels

Ratings: 1=never, 2=rarely, 3=some days, 4=most days, 5=every day

Safety

Surveillance
RN RATING OF CARE QUALITY

Mean RN-Perceived Quality of Care in General (1- to 4-point scale)

Quartile Levels

Ratings: 1=poor, 2=fair, 3=good, 4=excellent

Safety

Surveillance
PRESSURE ULCERS

Mean Hospital-Acquired Pressure Ulcer Prevalence

Quartile Levels

Safety

Surveillance

Relationship with Patient Experience
LIKELIHOOD OF YOUR RECOMMENDING THIS HOSPITAL TO OTHERS

Mean Likelihood to Recommend (0% to 100%)

Quartile Levels

Safety
Surveillance

85
88.2
88.9
90.2
90.7

90
91.4

95

1
2
3
4
LIKELIHOOD OF YOUR RECOMMENDING THIS HOSPITAL TO OTHERS

Mean Likelihood to Recommend (0% to 100%)

95
90
85

88.2
88.9
89.3
89.4
88.7
89.8
90.2
90.7

1
2
3
4

Quartile Levels

Safety
Surveillance
Relationship with Publicly Reported Safety Outcomes
HOSPITAL-ACQUIRED CONDITIONS PENALTY (Y/N)

Mean HAC Penalty (0% to 1%)

Quartile Levels

Safety

Surveillance

0.53

0.47

0.47

0.51

0.44

0.44

0.38

1

2

3

4
VALUE-BASED PURCHASING: OVERALL SCORE

Mean VBP Overall Score (0 to 100)

Quartile Levels

Safety

Surveillance

### Drivers of RN Workplace Safety, Surveillance Capacity

<table>
<thead>
<tr>
<th>Nurse Outcomes</th>
<th>Patient Exp. Outcomes</th>
<th>Payment Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- RN Workplace Safety</td>
<td>- Assignment-appropriate last shift</td>
<td>- Assignment-appropriate last shift</td>
</tr>
<tr>
<td></td>
<td>- RN-to-RN interactions</td>
<td>- Safe patient handling and mobility program scale score</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Assignment-appropriate last shift</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- RN Surveillance Capacity</td>
<td>- Percent of RNs with specialty certification</td>
</tr>
<tr>
<td></td>
<td>- Staffing and resource adequacy</td>
<td>- Nursing Foundations for Quality of Care</td>
</tr>
<tr>
<td></td>
<td>- Nurse manager ability and leadership</td>
<td></td>
</tr>
</tbody>
</table>
Discover Key Findings from New Press Ganey White Paper, 
*Rules of Engagement: Assessing and Addressing Employee Engagement and Readiness for Change*

Insights in this paper help leaders prepare low-engagement work units for improvement and pave a path for safer, high-quality patient-centered care.

**WHITE PAPER—RULES OF ENGAGEMENT: ASSESSING AND ADDRESSING EMPLOYEE ENGAGEMENT AND READINESS FOR CHANGE**

To help health care leaders effectively nurture engagement and resilience, Press Ganey presents our most recent white paper, *Rules of Engagement: Assessing and Addressing Employee Engagement and Readiness for Change*. This report focuses on strategies for identifying and improving the underlying drivers of engagement at the work-unit level and overcoming barriers to action planning by enhancing the leadership competencies of mid-level managers.

Download the Whitepaper

Updates

NHSN CLABSI REPORTING

- There is no change in the CLABSI definition and protocol
- NHSN changes do not impact NDNQI CLABSI data submission
- For both NDNQI and NHSN, clients are to submit both Laboratory Confirmed Bloodstream Infection (LCBI) and Mucosal Barrier Injury Laboratory-Confirmed Bloodstream Infection (MBI-LCBI).
  - Despite the change in calculation, MBI-LCBI remains a reportable event under the NHSN CLABSI protocol.
- NHSN plans to rebaseline their data and revise their measurement calculations to exclude MBI-LCBI and new measures specific to MBI-LCBI will become available.
- NDNQI will continue to work with NHSN on MBI-LCBI measures.
- Continue to report LBIs and MBIs to NDNQI - there is no change in data submission.
EXCEL / CSV UPLOAD OPTION

- Available Indicators
  - Nursing Care Hours
  - Patient Days
  - Falls
- INPATIENT units only
  - Not Ambulatory Care units
  - Not Emergency Department
  - Not Perinatal Days
- Upload Documentation
  - NDNQI Website > Main Menu > Documents > Electronic Upload Documentation
12. Electronic Upload Documentation

**eMeasure**
- Download Pressure Ulcer Access Container
- Download Pressure Ulcer Excel Container
- Pressure Ulcer Guidelines

**NHSN**
- NHSN Unit Mapping Documentation
- Guidelines for Submission of NHSN Data – CLABSI, CAUTI, and VAE (PDF)
- FAQs for NHSN Upload to NDNQI

**XML**
- Documentation for Site Coordinator or Nursing Personnel and IT Developers
  - XML Overview (PDF) General overview of uploading your data to NDNQI.
  - XML Upload Specifications (PDF) Specifications and instructions for transforming your data to XML format.
  - Sample XML File (.xml) A sample XML file.
  - Sample Reference Tables (.mdb) A sample reference tables database. (Requires Microsoft Access 2000 or greater)
- Documentation for IT Developers - download new versions every quarter
  - Version 11 Reference Tables (MS Access database) Download new reference tables every quarter.
  - XML Client Validations v11.pdf Defines the specific validations for the data to submit.
  - NDNQIv11.xsd Defines the format and layout of the XML file you will submit.

**EXCEL**
- FAQs for Excel/CSV Upload to NDNQI
- Excel Upload Overview (PDF)
- Excel Upload Client Validations
- Excel Upload Reference Tables (.xlsx)
TUTORIAL INDICATOR GUIDELINES LINK

- Indicator Guidelines Directly Linked in Tutorials

Welcome to the Patient Falls module where you will learn how the data elements are defined and the process of collecting and entering your facility’s data. After you have reviewed both the data collection and data entry sections, there will be a short quiz. The quiz covers the knowledge that is essential to entering valid, reliable, and comparable data on Patient Falls. Once you have successfully completed the quiz, your permission to enter data will be automatic providing your site coordinator has authorized you for this indicator. You are encouraged to use this tutorial not only to become certified for web data entry, but also as a reference tool for use at any time.

If you have selected this as your first module to study, we recommend that you review the General Overview module first.

The purposes of the patient falls indicator are to:
1) Determine the rate at which hospitalized and ambulatory patients fall
2) Determine the frequency with which patient falls result in injury.
3) Explore the relationship between nursing staffing, nursing assessments performed, interventions used, and falls.

Three rates are reported:
- Total Falls per 1,000 Patient Days
- Injury Falls per 1,000 Patient Days
- Unassisted Falls per 1,000 Patient Days

Numerator = # of falls for the reporting period * 1,000
Updates

DATA DELETIONS

- You can now delete data without contacting NDNQI – YAY!!
- NDNQI recently revised the website to allow users to delete their own data.
  - Navigate to the year/quarter, unit, indicator. At the bottom of the screen will be edit and delete buttons.
Reminders
Access for New Users

- The Site Coordinator provides the NDNQI hospital code to the new user
- The user visits the NDNQI website Log In page (members.nursingquality.org)
  - Clicks on “New User Registration” to register
  - Creates a password
  - Notifies the Site Coordinator when registration is complete
- The Site Coordinator logs on to the website after user registration is complete
  - Activates the new user
  - Grants permissions to the user for appropriate functions, such as
    - Learning Center
    - Data Entry Access
    - Reports
    - Teleconference
- The user must pass both general and indicator-specific tutorials in order to enter data
Data Entry

- If a unit has changed unit types, now is a good time to make the change as 3Q data submission has passed and 4Q data entry is beginning.
  - *This isn’t a change you want to make the week of quarter close!*
- You can now update hospital demographics for 4Q data submission.
- If you are not reporting on an indicator -- just leave it blank.
- If a unit was not open for more than half the quarter, it is acceptable to not submit any data on the unit for that quarter.
The Documents tab is your friend!!

- **Quarterly Data Entry**
  
  Authorization is required to proceed with quarterly data entry.

- **Annual Data Entry**
  
  Authorization is required to proceed with annual data entry.

- **Reports**
  
  Quarterly, RN Survey Reports, Data Summary and Data Error Reports

- **Documents**
  
  Newsletters, Guidelines, Data Collection Spreadsheet and More.

- **Learning Center**
  
  Tutorials, Resource Center, Free Pressure Ulcer Training, and Press Ganey Online Community.

- **Contracts**
  
  View and Accept Agreements

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**Site Coordinator Webpage**

For authorizing additional data entry persons at your facility and updating your hospital demographics.

**Survey Coordinator Webpage**

Register, prepare and manage your RN Survey.

This hospital participated in the October 2016 RN Survey. Thank you.

**Unit Management**

View all of your units and add new units.

**Electronic Upload**

XML, NHSN, and Excel Uploads.

**Teleconference Webpage**

Download handouts.
### Quarterly Data Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>1st Quarter</th>
<th>2nd Quarter</th>
<th>3rd Quarter</th>
<th>4th Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection</td>
<td>January 1 - March 31</td>
<td>April 1 - June 30</td>
<td>July 1 - September 30</td>
<td>October 1 - December 31</td>
</tr>
<tr>
<td>Data Submission</td>
<td>January 1 - May 15</td>
<td>April 1 - August 15</td>
<td>July 1 - November 15</td>
<td>October 1 - February 15</td>
</tr>
<tr>
<td>Report Posted on Web*</td>
<td>June 30</td>
<td>September 30</td>
<td>December 31</td>
<td>March 31</td>
</tr>
<tr>
<td>Verify Hospital Demographics &amp; Provide User Data Entry Permissions*</td>
<td>February 16 - May 15</td>
<td>May 16 - August 15</td>
<td>August 16 - November 15</td>
<td>November 16 - February 15</td>
</tr>
<tr>
<td>Retroactive Data Entry*,#</td>
<td>July 1 - August 15</td>
<td>October 1 – November 15</td>
<td>January 1 - February 15</td>
<td>April 1 - May 15</td>
</tr>
</tbody>
</table>

* Dates subject to change. If date occurs on a weekend or holiday, the activity is extended to the first business day that follows.

# Data entered retrospectively are included in the next quarterly report.
Please Remember

- Hospital Demographics must be updated by the Site Coordinator quarterly
  - Function becomes available the day after quarter close
  - Until demographics are updated, all users (including NDNQI staff) will be prevented from entering data, performing unit management functions, and viewing reports
  - Suggestion: the dates do not change, so set a recurring reminder on the calendar for the 16th of February, May, August, and November

- Average Daily Census
  - Prepopulated from previous quarter, but must be updated to reflect the facility’s actual ADC – should not remain the same for multiple quarters

- Error Emails from NDNQI
  - If you receive an email from an NDNQI analyst or account manager regarding data error clarification, please respond directly to the NDNQI sender

- HOSPITAL CODE!!!!
  - Please include your hospital code in all correspondence and voice messages to NDNQI
NDNQI Community Resource

- Press Ganey Online Community (www.pressganey.com/forum) and New NDNQI Group
NDNQI Pressure Injury Indicator update

Jennifer Probst  BSN, RN
NDNQI Advisor
Overview of Changes

PRESSURE ULCER UPDATES AND CHANGES

Alignment with 2016 NPUAP Guidelines

- Terminology change from Pressure Ulcer to Pressure Injury
- Updated Pressure Injury staging names
- Updated Pressure Injury definitions
- Retired Indeterminable category
- New Mucosal Membrane Pressure Injury classification
- New designation of Medical Device Related Pressure Injury
Overview of Changes

NDNQI changes for NPUAP alignment

- Clarification of existing terms used in the guidelines
- Updated Pressure Injury Risk Status definitions
- Updated Pressure Injury Prevention definitions
- New term Nonvisible Pressure Injury used by NDNQI
- Ability to enter data for one prevalence study per month for up to 3 months to receive a quarterly rate
Overview of what is NOT changing

PRESSURE ULCER UPDATES AND CHANGES

Data collection and submission for NDNQI

- Origin of Pressure Injuries
  - Community, HAPI and UAPI

- Pressure Injury survey procedures: same one day prevalence study of all the patients on the unit, on all reporting units in the hospital
  - No change in survey team, training, education, timing or organization
    - May conduct monthly
  - No major change in data collection sheet
    - Additional fields

- Same eligible unit types
  - May combine with Restraints survey

- Data entry of unit summary
  - Patient inclusion/exclusion
Overview of what is NOT changing

Data Collection and submission for NDNQI

- Data entry of each individual patient information on the unit
  - Same required fields
  - Pressure Ulcer stages I-IV are still Pressure Injuries 1-4
  - Same Injury/Ulcer Inclusion/Exclusion with updated definitions

- Assessment of Pressure Injury Risk
- Same Pressure Injury Prevention with updated terms and examples
  - Skin Assessment, Pressure Redistribution Surface, Routine Repositioning, Nutritional Support, Moisture Management

- Error reports
  - Mismatch

- Current calculated rates
  - HAPI
  - UAPI
Overview of Changes to Reports

PRESSURE ULCER REPORT UPDATES AND CHANGES

Alignment with 2016 Pressure Injury Guidelines

- Updated Pressure Injury staging names
- New rate for Percent of HAPI which are Mucosal Membrane Pressure Injury
- New measure: Percent of HAPI which are known to be Medical Device Related
- New measure: Percent of UAPI which are known to be Medical Device Related
- Quarterly rate based on monthly data entry
Required Changes

CHANGES REQUIRED FOR PRESSURE INJURY SUBMISSION

Effective for Quarter 1 2017

- Updated material will be posted to the NDNQI website December 23, 2016
- All Pressure Injury data entry persons must take the new Pressure Injury Tutorial
- Conduct at least one Pressure Injury Prevalence study during the quarter
- Use the new data collection forms for accurate data entry
NDNQI Website Resources

- **Introduction/Overview and Unit Management Documents**
  - Main Menu → Documents → 1. Introduction & Unit Management
    - Appendices B and D

- **Guidelines for Data Collection Forms for all Indicators**
  - Main Menu → Documents → 2. Structure Indicators
  - Main Menu → Documents → 3. Clinical Indicators
    - Pressure Injury Guidelines
    - Pressure Injury Data Collection Form

- **Learning Modules and Tutorials for all Indicators and Reports**
  - Main Menu → Learning Center

- **Quality Intelligence Report Documents** – Explain the different report formats and options
  - Main Menu → Reports → Quality Intelligence Reports → Learn More
  - Main Menu → Documents → 6. Quality Intelligence Documents

- **Glossary and Reference Guide to all Indicators** – Complete list of how each measure is calculated
  - Main Menu → Documents → 7. Understanding Reports
Save the Date 1-17-2017

Special Educational Webinar

Pressure Injury

Tuesday, January 17, 2017 11am - noon EST