

**Microspecifications Manual
For Reporting of the Nursing Sensitive Indicator
Quality Data Set**

**Data Collection and Reporting
Instructions**

July 2008

Effective for 3rd Quarter 2008 NSI Data
(Data generated starting July 2008)

STATUTORY AUTHORITY: 22 M.R.S.A., §8708-A, Chapter 270

- **Nursing-Sensitive Patient-Centered (NSPC) Health Care Quality Data Set**
 - **Nursing-Sensitive System-Centered (NSSC) Health Care Quality Data Set**
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In accordance with the above statutory authority, the following instructions are applicable to all Maine Hospitals.

For all patients listed in the specific denominator and numerator categories (minus exclusions) listed in the *National Quality Forum (NQF) National Voluntary Consensus Standards for Nursing-Sensitive Care: An Initial Performance Measure Set, A Consensus Report, 2004*, each hospital or their agent shall report data to the Maine Health Data Organization (MHDO) for the following patient-centered outcome quality metrics:

For each nursing-sensitive patient-centered (NSPC) health care outcome measure, the NSPC metrics are:

NSPC – 1: Percentage of inpatients who have a hospital-acquired pressure ulcer (Stage I or greater).

NSPC – 2: Number of inpatient falls per inpatient days.

NSPC – 3: Number of inpatient falls with injuries per inpatient days.

NSPC – 4: Percentage of inpatients who have a vest or limb restraint.

For the total number of productive hours worked by the nursing staff (RN, LPN, UAP) with direct patient care responsibilities as identified in the specific denominator and numerator categories (minus exclusions) listed in the *NQF National Voluntary Consensus Standards for Nursing-Sensitive Care: An Initial Performance Measure Set, A Consensus Report, 2004*, for the nursing-sensitive system-centered health care metrics (listed below).

For each nursing-sensitive system-centered (NSSC) health care measure, the NSSC skill mix metrics are:

NSSC – 1: Percentage of RN care hours to total nursing care hours.

NSSC – 2: Percentage of LPN care hours to total nursing care hours.

NSSC – 3: Percentage of UAP care hours to total nursing care hours.

NSSC – 4: Percentage of contract care hours (RN, LPN, and UAP) to total nursing care hours.

For each nursing-sensitive system-centered (NSSC) health care measure, the NSSC nursing care hours metrics are:

NSSC – 5: Number of RN care hours per inpatient day.

NSSC – 6: Number of nursing care hours (RN, LPN, UAP) per inpatient day.

NSSC – 7a: Number of voluntary uncontrolled separations (RN/advanced practice nurse) during the quarter.

NSSC – 7b: Number of voluntary uncontrolled separations (LPNs/nurse's assistants/aides during the quarter.

ADDITIONAL REGULATORY INFORMATION

Submission Requirements.

1. Filing Media. Each hospital or their agent shall file all applicable data sets on diskette, compact disc, or via electronic transmission provided that such diskette, compact disc, or electronic transmission is compatible with the data processing capabilities of the MHDO.

2. File Submission. All data file submissions shall be accompanied by an electronic transmittal sheet containing the following information: identification of the health care facility, file name, data period(s) (quarter/year), date sent, and a contact person with telephone number and E-mail address. The transmittal sheet layout is presented as the Nursing Sensitive Indicators Excel Transmittal Workbook at the MHDO's website at:

http://mhdo.maine.gov/imhdo/quality_data.htm

3. Filing Periods. Data generated in accordance with the provisions of Sections 2, 3, 4, and 5 shall be submitted no later than the end of the 5th month following the end of each calendar quarter in which the service occurred. The filing periods are as follows:

Collection Quarter	Months	Submission Date
1st Quarter	January, February, March	September 1st
2nd Quarter	April, May, June	December 1st
3rd Quarter	July, August, September	March 1st
4th Quarter	October, November, December	June 1st

Standards for Data; Notification; Response.

Standards. The MHDO or its designee shall evaluate each file submission in accordance with the following standards:

- 1. For each category of metrics, hospitals shall report each numerator (metric) and denominator (population) as defined in the most current version of the metrics as endorsed in the NQF National Voluntary Consensus Standards for Nursing-Sensitive Care: An Initial Performance Measure Set, A Consensus Report, 2004, for each nursing sensitive health care measure.**
- 2. Coding values indicating "data not available", "data unknown", or the equivalent will not be accepted.**
- 3. Notification. Upon completion of this evaluation, the MHDO will promptly notify each hospital whose data submissions do not satisfy the standards for any filing period. This notification will identify the specific file and the data elements within them that do not satisfy the standards.**
- 4. Resubmission. Each hospital and ambulatory surgery facility notified under MHDO Rules, Chapter 270, Section 7, Subsection 4 will resubmit the data within 30 days of the notification by making the necessary changes to satisfy the standards.**
- 5. Replacement of Data Files. No hospital may amend its data submission more than one year after the end of the quarter in which the discharge or service occurred unless it can be established by the hospital that exceptional circumstances occurred. Any resubmission of data after the elapse of the one year period must be approved by the MHDO Board.**

Public Access.

Information collected, processed and/or analyzed under this rule shall be subject to release to the public or retained as confidential information in accordance with 22 M.R.S.A. § 8707 and Code of Maine Rules 90-590, Chapter 120: Release of Information to the Public, unless prohibited by state or federal law.

Waivers to Data Submission Requirements.

If a hospital or ambulatory surgery facility due to circumstances beyond its control is temporarily unable to meet the terms and conditions of this Chapter, a written request must be made to the Executive Director of the MHDO as soon as it is practicable after the hospital has determined that an extension is required. The written request shall include: the specific requirement to be waived; an explanation of the cause; the methodology proposed to eliminate the necessity of the waiver; and the time frame required to come into compliance. The Executive Director shall present the request to the MHDO Board at its next regularly scheduled meeting where the request shall be approved or denied.

Compliance.

The failure to file, report, or correct quality data in accordance with the provisions of this Chapter may be considered a violation under 22 MRSA Sec. 8705-A.

DEFINITIONS

"APN" Advanced Practice Nurse

Advanced practice registered nursing. "Advanced practice registered nursing" (A.P.R.N.) means the practice of a registered professional nurse who, on the basis of specialized education and experience, is authorized under Maine Board of Nursing rules to deliver expanded professional health care. **Categories of direct care advanced practice nurses include: Nurse Practitioners, Clinical Nurse Specialists, Nurse Anesthetists, and Nurse Midwives.**

"ANA-NDNQI"

The National Database of Nursing Quality Indicators (NDNQI), a repository for nursing-sensitive indicators, is a program of the American Nurses Association (ANA). The project is administered on ANA's behalf by The University of Kansas Research Institute.

“CaINOC”

The California Nursing Outcomes Coalition (CaINOC) project is an initiative that has become the largest ongoing nursing quality measurement repository in the nation. Launched in 1996 by California nursing leaders concerned with trends in hospital care, CaINOC has created reliable quality benchmark data to define patient safety thresholds in California.

“Community Acquired Pressure Ulcer

Ulcers that developed *prior* to hospital admission. A community acquired pressure ulcer is defined as:

- Ulcer discovered/documented on first day of hospitalization; or
- Prevalence study was done on day one of patient’s hospital stay and ulcer was already present.

Patients who are transferred between acute care, rehab, or long term care units are considered as admitted/discharged according to Medicare guidelines, even if the units are on the same campus.

“Contract Hours”

Contracted and/or agency staff who are not employed by the facility but are hired on a contractual basis to fill staffing needs for a designated shift or for a short-term contracted basis, or registry staff from outside the facility (e.g., not floating staff from within the facility), or traveling nurse staff contracted to the facility for a designated period of time.

“Critical Access Unit”

A unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical care, skilled nursing (swing bed) and/or obstetrics (previously reported as “Critical Access Hospital – Mixed Acuity Unit”).

“Direct Patient Care Responsibility”

Patient-centered nursing activities carried out by unit-based staff in the presence of the patient (e.g., medication administration, nursing treatments, nursing rounds, admission/transfer/discharge, patient teaching, patient communication) and nursing activities that occur away from the patient that are patient related (e.g., coordination of patient care, documentation time, treatment planning).

“Employee”

Persons who are employed directly by the facility and are on the payroll for the purpose of providing nursing care. This would include a hospital's own internal "registry" or "per diem" staff **but not contracted or agency staff.**

"Fall"

An unplanned descent to the floor (or extension of the floor, e.g. trash can/equipment) with or without injury to the patient, and occurs on an eligible reporting unit. All types of falls are included whether a result of physiological reasons (e.g. fainting) or environmental reasons (e.g. slippery floor). Include assisted falls (when a staff member attempts to minimize the impact of a fall by easing patient's descent to the floor or in some manner attempting to break the patient's fall).

"Fall with Injury"

An injury is considered when there is an observable change in the patient's condition as a result of a fall. "Fall with injury" is an event which typically requires clinical intervention at any of the following levels: minor (results in application of a dressing, ice, cleaning of a wound, limb elevation, or topical medication), moderate (results in suturing, steri-strips/skin glue, fracture, or splinting), major (results in surgery, casting, traction, or required consultation for neurological or internal injury), or death (as a result of the fall). A method to follow up on the patient's condition at least 24 hours later should be established, as Fall Injury Level is a required data element to determine this measure population.

"Hospital"

Any acute care institution required to be licensed pursuant to 22 MRSA, chapter 405.

"Hospital Acquired Pressure Ulcer (Nosocomial)"

A pressure ulcer identified during the prevalence study that does not meet the criteria for a community acquired pressure ulcer. Nosocomial refers to new ulcer(s) developed after admission to a facility. All ulcers not meeting the community-acquired criteria should be designated as hospital-acquired pressure ulcers.

"Hospitalization Day"

A hospitalization day is the time period between midnight and 11:59 PM.

"Hospitalization, First Day of" (same as "Admission Day")

The first day the patient is included in the midnight census. This may be as long as 23 hours and 59 minutes if admitted at 12:01 AM or as short as one minute if admitted at 11:59 PM.

"Inpatient" (as defined by Centers for Medicare & Medicaid Services)

A person who has been admitted to a hospital for bed occupancy for purposes of receiving inpatient hospital services. Generally, a patient is considered an inpatient if formally admitted as inpatient with the expectation that he or she will remain at least overnight and occupy a bed even though it later develops that the patient can be discharged or transferred to another hospital and not actually use a hospital bed overnight. For these purposes, patients on the unit at the time of the prevalence study (e.g., short stay, observation, same day surgery, or swing beds) will be included in the prevalence study.

"Inpatient days"

The total number of days of admission for all patients admitted during an identified time period. A patient day is 24 hours beginning on the hour of admission. The total number of inpatient days for each unit is reported for each quarter including "days" of care provided to short stay, observation, same day surgery, or swing bed patients. You may exclude these short stay patient hours from inpatient days only if you can reliably identify nursing care hours associated with those beds and subtract them from the total productive nursing care hours for that unit. Acceptable methods for collecting inpatient day data include the following (the requirement is to default to the method that provides the greatest level of detail within the capabilities of the current system):

Midnight Census

- This is adequate for units that have all inpatient admissions. It is the least accurate method for units that have both inpatient and short stay patients. The daily number should be summed for every day in the quarter.

Midnight Census Plus Patient Days from Actual Hours for Short Stay Patients

- This is an accurate method for units that have both inpatients and short stay patients. The short stay "days" should be reported separately from midnight census and added to obtain patient days. The total daily hours for short stay patients should be summed for the quarter and divided by 24.

Midnight Census Plus Patient Days from Average Hours for Short Stay Patients

- This method is not as accurate as using a count of short stay patient hours on units that have both inpatients and short stay patients. The short stay average

is to be obtained from a special study documenting the time spent by short stay patients on specific unit types. Average short stay days should be reported separately and are added to midnight census to obtain patient days. The average daily hours should be multiplied by the number of days in the quarter and the product divided by 24 to produce average short stay days.

Patient Days from Actual Hours

- This is the most accurate method. An increasing number of facilities have accounting systems that track the actual time spent in the facility by each patient. Sum actual hours for all patients, whether in patient or short stay, and divide by 24.

Patient Days Averaged from Multiple Census Reports

- Some facilities collect censuses multiple times per day (e.g., every four hours or each shift). This method is more accurate than the Midnight Census, but not as accurate as Midnight Census Plus Actual Short Stay Hours or as Actual Patient Hours. A sum of the daily average censuses can be calculated to determine patient days for the quarter on the unit.

“LPN” Licensed Practical Nurse

An individual who is currently licensed as a “licensed practical nurse” pursuant to 32 MRSA, chapter 31.

“Mixed Acuity Unit”

A unit on which no single acuity level accounts for at least 90% of the patients. Includes units following the universal bed concept such as burn units caring for patient from critical admission to discharge.

“MRSA”

Maine Revised Statutes Annotated.

“NDNQI”

The American Nurses Association's National Database of Nursing Quality Indicators

“Nursing Care Hours” (called “Productive Hours” by NDNQI)

The number of actual hours worked by employed and contracted RNs, LPNs, and/or UAPs assigned to the unit, with direct patient care responsibilities, not budgeted or

scheduled hours. Nursing care hours do not include paid time off including vacation, holiday, medical leave, orientation, educational leave, or committee time. Orientation time is considered non-productive. However, orientation programs vary from hospital to hospital. Once orientees reach the point where they are considered part of the staffing matrix, their work hours are charged to the unit and they would be replaced if they call in sick, then count their hours as productive.

"Per Diem Employee"

Per diem employees (also called PRN and casual staff) are used to supplement or substitute for regular staff. They usually have minimum scheduling requirements, are not eligible for employee benefit programs, and may be terminated without recourse to grievance procedures. In Maine they are typically employed by the hospital, listed on the unit payroll, paid from the unit cost center, but may or may not have permanent employee status. Even if they are permanent employees, they are not included in the Voluntary Uncontrolled Separation measure. However, if they are listed on the unit payroll, paid from the unit cost center, and provide direct patient care, their hours worked are counted under the nursing staffing measures under the correct educational level (RN, LPN, or UAP hours per Inpatient Day).

"Permanent Employee"

Employees in a permanent, unit nursing staff position. A variety of labels are used across hospitals, including regular, career, non-probationary, non-temporary, or benefits-eligible employees. These are full-time or part-time staff that are entitled to the rights of employee grievance procedures and are eligible for employee benefits programs.

New employees still in probationary status (the status of an employee during the initial, trial period of employment) are excluded from the Uncontrolled Separation measure. Probationary periods can range from three to 12 months or longer.

Probationary period is different from unit orientation period or inclusion / exclusion in a unit staffing matrix.

Work hours of new employees who have completed orientation (but who may still be in probationary status) are counted under the nursing staffing measures under the correct education level (RN, LPN, or UAP hours per Inpatient Day).

"Pressure Ulcer"

A pressure ulcer is localized injury to the skin and/or underlying tissue usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or

friction. A number of contributing or confounding factors are also associated with pressure ulcers; the significance of these factors is yet to be elucidated.

In February 2007 the National Pressure Ulcer Advisory Panel redefined the definition of a pressure ulcer and the stages of pressure ulcers, including the original four stages and adding two stages on deep tissue injury and unstageable pressure ulcers.

Pressure ulcers are staged as follows:

Stage I:

Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area.

Further description:

The area may be painful, firm, soft, warmer, or cooler as compared to adjacent tissue. Stage I may be difficult to detect in individuals with dark skin tones. May indicate "at risk" persons (a heralding sign of risk)

Patients with Stage I pressure ulcers identified in the pressure ulcer prevalence survey are reportable in the Excel NSI data transmittal workbook on the NSPC-1 Pressure Ulcer worksheet. Use the Data Submittal Worksheet to report the Number of Patients with Stage II or Greater Pressure Ulcers.

Stage II:

Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.

Further description:

Presents as a shiny or dry shallow ulcer without slough or bruising.* This stage should not be used to describe skin tears, tape burns, perineal dermatitis, maceration, or excoriation.

*Bruising indicates suspected deep tissue injury

Stage III:

Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon, or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.

Further description:

The depth of a stage III pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput, and malleolus do not have subcutaneous tissue and stage III ulcers can be shallow. In contrast, areas of significant adiposity can

develop extremely deep stage III pressure ulcers. Bone/tendon is not visible or directly palpable.

Stage IV:

Full thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunneling.

Further description:

The depth of a stage IV pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput, and malleolus do not have subcutaneous tissue and these ulcers can be shallow. Stage IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis possible. Exposed bone/tendon is visible or directly palpable.

Unstageable/ Suspected Deep Tissue Injury (combined into one reporting category):

Unstageable

Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green, or brown) and/or eschar (tan, brown, or black) in the wound bed.

Further description:

Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore stage, cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as "the body's natural (biological) cover" and should not be removed.

Suspected Deep Tissue Injury:

Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer, or cooler as compared to adjacent tissue.

Further description:

Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment.

Patients in multi-system organ failure may develop ulcers called Kennedy terminal ulcers. Do not exclude these ulcers for their stages from your survey.

Patients with Stage II or Greater Pressure Ulcers identified in the pressure ulcer prevalence survey are reportable in the Excel NSI data transmittal workbook on the Data Submittal Worksheet. These include patients with Stage II, Stage III, Stage IV, and Unstageable/Suspect Deep Tissue Injury pressure ulcers. For NSI Reporting, patients with more than one ulcer should be counted only once under worst ulcer staging category.

“Prevalence” and “Prevalence Study”

A cross-sectional count of the number of cases at a specific point in time in a patient population (e.g., the number of persons with hospital-acquired pressure ulcers or with vest or limb restraints on a designated unit); also called a snap-shot or point prevalence. A prevalence study is the measure of a specific condition in a specific population at a given point in time as defined by the formula: the number of existing cases divided by the population under study on the designated survey date.

For this measure set, prevalence surveys must be conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter (February, May, August, or November).

See Appendix C for prevalence study methodology.

“Productive Hours”

The actual hours paid for direct patient care work on the unit, not budgeted or scheduled hours. Productive hours do not include paid time off including vacation, holiday, medical leave, orientation, education leave, or committee time. Absences from the unit of less than or equal to one hour need not be subtracted from direct patient care hours. Total paid hours cannot be substituted for direct patient care hours.

“Restraint” (called “Physical Restraint” by NDNQI)

Physical restraints are any manual method or physical or mechanical device, material, or equipment attached or adjacent to the patient’s trunk or limbs that he or she cannot easily remove and restricts freedom of movement or normal access to one’s body. For the purposes of this study only limb and vest type restraints will be included, in accordance with the National Quality Forum consensus standard. Although NDNQI collects “Limb”, “Vest”, and “Other” physical restraints as separate categories, only “Limb and Vest” restraints (reported together) are included in this reporting effort.

“Restraint Exclusions”

For the purposes of this study, this definition will not include restraint use that is only associated with medical, dental, diagnostic, or surgical procedures and is based on

standard practice for the procedure (sometimes referred to as "treatment restraints" and time-limited for a specific procedure only); seclusion; restraint uses that are forensic or correctional restrictions used for security purposes unrelated to clinical care; and devices used to meet the assessed needs of a patient who requires adaptive support or a medical protective device (e.g., IV arm boards).

"RN" Registered Nurse

An individual who is currently licensed as a "Registered Professional Nurse" pursuant to 32 MRSA, chapter 31.

"UAP " Unlicensed Assistive Personnel

Individuals employed to provide hands-on assistance with activities of living to individuals in homes, assisted living centers, residential care facilities, hospitals, and other health settings pursuant to 22 MRSA, chapter 401. It includes certified nursing assistants, mental health workers or technicians or treatment team coordinators in psychiatric settings, and emergency medical technicians. It does not include vocational rehabilitation technicians for the purposes of this methodology.

"Voluntary Uncontrolled Separation Rate" (called "Adapted-NQF Voluntary Turnover Rate" by NDNQI)

The proportion of the number of full-time and part-time, permanent, direct care unit staff that separate (leave their position) voluntarily during the quarter, due primarily to a reason defined as employee dissatisfaction with their job. Reasons for separation that are defined as "voluntary" include compensation/pay, inability to advance, staffing or workload, dissatisfaction with or conflict with team members, dissatisfaction with or conflict with management, dissatisfaction with work environment, and perceived lack of respect. It is defined by the formula: the number of staff leaving their position during the quarter (for reasons as listed above) divided by the total number of staff employed at the beginning of the quarter.

INSTRUCTIONS

DATA SPECIFICATIONS

NSPC – 1: Percentage of inpatients who have a hospital-acquired pressure ulcer (Stage I or greater)

Numerator: Inpatients with a National Pressure Ulcer Advisory Panel (NPUAP) Stage II or greater (II through IV + Unstageable/Suspect Deep Tissue Injury) hospital-acquired pressure ulcer

Note: Stage I ulcers must still be submitted. Please refer to "NSPC-1 Pressure Ulcer – Required" tab in the Excel workbook

Denominator: The total number of inpatients in the prevalence survey **conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter**

Exclusions from numerator:

- Skin breakdown due to arterial occlusion, venous insufficiency, diabetes neuropathy, or incontinence dermatitis is not reported in the numerator
- Community acquired ulcer-prevalence study done on the first day of patient's hospital stay and ulcer already present
- Stage I ulcers

Exclusions from numerator & denominator

- Patient too unstable or critical to turn for examination
- Patient off the unit at the time of the survey (e.g., at x-ray or in surgery)
- Patient refused
- Patient in process of dying and assessment inappropriate due to family wishes

Rationale: The incidence of hospitalized patients developing pressure ulcers has been reported to range from

2.7% (Gerson, 1975) to 29.5% (Clarke and Kadhom,1988). Certain circumstances (e.g., immobility, incontinence, impaired nutritional status, critical illness, etc.) further increase the risk for selected patients. The development of hospital acquired pressure ulcers (HAPU) places the patient at risk for other adverse events and may lead to increased lengths of stay. HAPUs also increase resource consumption and costs. Recommendations from the guideline *Pressure Ulcers in Adults :Prediction and Prevention* (AHCPR, 1992) include the identification of individuals at risk and early intervention with a goal of maintaining and improving tissue tolerance in order to prevent injury. In most vulnerable patients, reducing risk factors and implementing preventive/treatment measures will reduce the incidence of new pressure ulcer development and prevent the worsening of existing ulcers. Nurses and nursing-care interventions play an important role in pressure ulcer prevention and management. The use of this prevalence measure allows organizations to monitor this important patient outcome at points in time and examine institutional processes.

FREQUENTLY ASKED QUESTIONS

1. *Do we have to identify every patient with a pressure ulcer of Stage I or greater during the reporting period?*

You are not required to identify every patient with a Stage I or greater hospital-acquired pressure ulcer during any given reporting period. You should conduct a prevalence study once during each reporting period to determine the prevalence of these ulcers in your inpatient population.

2. *We have not done prevalence studies in the past. How should I prepare for and conduct one?*

For this measure set, prevalence surveys must be conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter (February, May, August, or November). Please see Appendix C for prevalence study methodology.

3. *How should we include patients who cannot be assessed due to a cast or dressing that cannot be removed?*

If the ulcer is known to be present and is hospital acquired but cannot be staged and it is believed not to be one of the exceptions, the patient should be counted in both the numerator and denominator. The ulcer would be listed as "unstageable".

If a determination regarding the presence of an ulcer cannot be made, the patient should not be counted in the numerator but will be counted in the denominator since other areas of the body should be assessed for presence of ulcers.

4. *Should we include patients admitted for "observation" as inpatients when collecting this data?*

Yes. Anyone on the unit at the time of the prevalence study should be included.

5. *Should we include patients in the Emergency Department or patients in "holding areas" awaiting admission when collecting this data?*

No. They are not on the unit.

6. *Are there any clinically-related exclusion criteria for patients who are paraplegia or quadriplegia and more frequently develop pressure ulcers?*

The only clinical exceptions to the numerator data are: "Skin breakdown due to arterial occlusion, venous insufficiency, diabetes neuropathy, or incontinence dermatitis" and "too unstable or critical to turn for examination."

7. *If a patient has been in the hospital for several days or weeks, and a Stage I or greater pressure ulcer was identified in the admission assessment, should we count that patient in the numerator as part of this data collection process?*

No, if the only ulcer(s) present is/are community-acquired. If a Stage I or greater pressure ulcer is noted in the admission assessment, it is considered to be "community acquired" and should not be counted in the numerator. If nosocomial ulcers are present in addition to those noted on admission then the patient should be included in the numerator.

NSPC – 2: Number of inpatient falls per inpatient days

Numerator: Number of inpatient falls

Denominator: Total number of inpatient days

Inclusions:

- All falls that occur on a reportable nursing unit

Exclusions:

- Falls that occur in an area of the hospital other than a reportable nursing unit

Rationale: Patient falls occurring during hospitalization can result in serious and even potentially life threatening consequences for many patients. Nurses are responsible for identifying patients who are at risk for falls and for developing a plan of care to minimize that risk. Short staffing, nurse inexperience and inadequate nurse knowledge could place patients at risk for injury. High performance measure rates may suggest the need to examine clinical and organizational processes related to the identification of, and care for, patients at risk of falling, and possibly staffing effectiveness on the unit.

FREQUENTLY ASKED QUESTIONS

1. Which method of data collection is recommended for this metric?

Data for this metric should be derived from internal reports of falls, i.e. "incident reports", "event reports", quality and/or safety reports). Because those reports are dependent upon your organization's policy on event reporting (specifically, falls) policies and upon the staff compliance with those policies, it may be beneficial to review your policy(ies) and to compare them to the definition for "falls" and fall-associated injuries used by the National Quality Forum in validating this metric. In addition, it may be helpful to review these policies with your staff to make certain that they understand the definitions of reportable events and the importance of reporting them.

2. If a patient falls but has no injury as a result of the fall, should that event be included in the numerator?

NSPC -2 requires that you include all falls in the numerator. Any fall, whether or not the patient was injured, must be included here.

3. *A nurse is assisting a post-operative patient with ambulation, the patient becomes weak, and the nurse assists the patient to the floor. Should that sort of event be documented as a fall?*

Yes. Consistent with the definition of falls, all falls are recorded. This is considered an assisted fall by ANA definition.

4. *If a family member or non-clinical hospital staff member reports that a patient has fallen, but the patient has no sign of injury and the fall cannot be validated, should that report be counted as a fall and included in the numerator?*

In the case of a reported fall that was not witnessed by a clinician, it is assumed that the patient's nurse would appropriately document that report in the patient's record and include that information in future nursing assessments and care planning. Given the potential importance of such a report, it should be reported as a fall through the designated organizational reporting process and included in the numerator for the purpose of data collection for this metric.

5. *We have a patient admitted to our unit who has a long history of falling frequently at home and she is now admitted for diagnostic testing to determine the possible etiology of her falls. Since frequent falling is the basis for her admission, should she be counted in the denominator?*

Yes. There are no denominator exclusions for this metric.

NSPC – 3: Number of inpatient falls with injuries per inpatient days

Numerator: Number of inpatient falls with injuries

Denominator: Total number of inpatient days

Inclusions:

- Any fall that results in a change that was not present prior to the fall

Exclusions:

- Falls that occur in an area of the hospital other than a reportable nursing unit
- Falls with no injury

Rationale: Patient falls occurring during hospitalization can result in serious and even potentially life threatening consequences for many patients. Nurses are responsible for identifying patients who are at risk for falls and for developing a plan of care to minimize that risk. Short staffing, nurse inexperience and inadequate nurse knowledge could place patients at risk for injury. High performance measure rates may suggest the need to examine clinical and organizational processes related to the identification of, and care for, patients at risk of falling, and possibly staffing effectiveness on the unit.

FREQUENTLY ASKED QUESTIONS

1. *Why are we required to include falls with very minor injuries in the numerator?*

Because the frequency of patient falls has been demonstrated to be a nursing-sensitive metric, it is important to capture all falls, regardless of the severity of injury. Patient falls rates are related to a number of nursing practice issues. By collecting fall frequency data and relating it to patient injuries, your organization will be better able to assess risk and consider alternative solutions to impact both fall prevention and potential environmental factors that may be related to fall injuries.

2. *If a patient falls and sustains an injury but refused treatment, should we include that fall in the numerator?*

Yes. The inclusion criterion states that an injury that “requires clinical intervention” must be included in the numerator. When a clinician assesses a fall-related injury and determines that clinical intervention is required, the injury is assumed to have occurred whether or not the patient consents to the recommended intervention.

3. *If a patient fall with injury is reported but the clinical intervention is not included in the report, how do we determine the severity of injury?*

Although it may important to your organization’s internal patient safety analysis, for the purpose of reporting data under this authority,

you are not required to indicate the level of severity of the fall. If a patient incurs any injury in which clinical intervention is required, the fall should be included in the numerator data for this metric. If there is no documentation of clinical intervention, the data analyst should make a reasonable assumption based upon the documentation of the fall and the reported resulting injury.

NSPC – 4: Percentage inpatients who have a vest or limb restraint

Numerator: Inpatients who have vest restraint and/or limb restraint (upper or lower or both) on the day of the prevalence study

Denominator: The total number of inpatients in the prevalence survey conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter

Inclusions:

- Limb and vest type restraints meeting the definition of a manual method or physical or mechanical device, material, or equipment attached or adjacent to the patient's trunk or limbs that he or she cannot easily remove and restricts freedom of movement or normal access to one's body

Exclusions:

- Restraints used for medical, dental, diagnostic, and surgical procedures based on standard practice (sometimes referred to as "treatment restraints" and time limited for specific procedures only)
- Seclusion
- Restraints used for forensic or correctional restrictions unrelated to clinical care
- Medical protective devices and adaptive supports (e.g., IV arm board)
- Patients off the unit at the time of the survey (e.g., at x-ray or in surgery)
- Patients meeting the pressure ulcer exclusion criteria for those hospitals performing both the restraint and pressure ulcer prevalence studies concurrently

Note: Please refer to "Restraint Exclusions" in Definitions section

Rationale: The utilization of physical restraints in the acute care setting has increasingly been the subject of interest by healthcare researchers, practitioners, and regulatory and accrediting bodies. Restraint use has the potential to produce serious consequences including physical and psychological harm. Potential physical complications can include the development of pressure ulcers, nerve and joint injuries, and even death from strangulation. The Joint Commission on Accreditation of Healthcare Organizations' (JCAHO) 2005 *Hospital Accreditation Standards* addresses the issue of restraint use and The Centers for Medicare and Medicaid Services (CMS) *Conditions of Participation* calls for restraint use only when medically necessary. Clinical practice guidelines suggest that the incidence and/or prevalence of restraint use should be monitored and that a range of effective prevention strategies and alternative therapies be implemented with the intent to use the least restrictive method of restraint. By measuring the use of physical restraints at points in time (prevalence), a hospital can monitor its performance with a goal of reducing restraint use and utilizing least restrictive alternatives to the degree consistent with the patient population served, clinical services offered and medical necessity.

FREQUENTLY ASKED QUESTIONS

- 1. Do we have to identify every patient with a vest or limb restraint during the reporting period?***

You are not required to identify every patient with a vest or limb restraint during any given reporting period. You should conduct a prevalence study once during each reporting period to determine the prevalence of the use of vest and/or limb restraints in your inpatient population. Observations are not to be referred by staff for those patients thought to be restrained but rather all patients who are on the unit at the time of the prevalence study on the audit day. The study should include review of the restrained patients of the patient's

medical record for indication of clinical justification and use of alternatives to restraint.

2. *We have not done prevalence studies in the past. How should I prepare for and conduct one?*

For this measure set, prevalence surveys must be conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter (February, May, August, or November). Please see Appendix C for prevalence study methodology

3. *Is an IV arm board affixed to a patient for the purpose of maintaining position and patency of a vascular access catheter considered a restraint? Is a freedom splint considered a restraint?*

No. If the purpose of the device is to maintain positional patency of vascular access the arm board is not considered a restraint. If, however, the purpose of a device is to prevent the patient from pulling on or otherwise disrupting the access device, it is considered a restraint. It is our understanding that freedom splints similarly maintain the patency of IV lines but additionally restrict normal access to one's body and therefore are considered limb restraints.

4. *A patient has a "halo" brace applied to permit greater freedom of movement following a cervical spine injury. Is the halo considered to be a restraint?*

No. "Halo" braces and traction are examples of "treatment restraints" and are excluded from reporting.

5. *An inpatient is under police custody and is in handcuffs. Should we count the handcuffs as restraints for the purposes of data collection for this metric?*

No. See "Restraint Exceptions" in definitions.

6. *Are mental health patients on the med/surg unit included in the restraint prevalence study?*

If the patient is on the unit and the restraint in use meets the definition of restraint, the patient is included.

7. *In previous versions of Maine's "Microspecifications Manual For the NSI Quality Data Set," restraints included bed nets/Soma beds, and*

Geriatric chairs with locked trays. Are these restraints still included in the restraint indicator?

No. NDNQI collects "limb," "vest," and "other" physical restraints as separate categories and would require reporting of these under the "Other" restraint category. Maine collects only "vest" or "limb" restraints (reported together). Therefore to align Maine's NSI measures with the NQF and NDNQI measures, these restraint devices are now excluded from reporting. This is because they do not meet the strict definition of "vest" or "limb" restraint (not attached to the trunk [vest] or arms/legs [limb]).

8. Do we include restraints to prevent extubation of mechanical ventilation devices or to prevent removal of intravenous lines as "limb" restraints? Are hand mitts fastened to the bed a "limb" restraint?

Restraints to prevent extubation of ventilators or removal of intravenous lines and hand mitts fastened to the bed are included as "limb" restraints even though they may be clinically justifiable to protect the patient or prevent them from removing necessary medical equipment. Hand mitts that are not fastened to the bed are not considered restraints and are excluded.

NSSC – 1: Percentage of RN care hours to total nursing care hours.

Numerator: Number of productive hours worked by RN nursing staff (employee and contract) with direct patient care responsibilities

Denominator: Number of total productive hours worked by RN, LPN, and UAP nursing staff (employee and contract) with direct patient care responsibilities

Inclusions:

- Staff who are counted in the staffing matrix (including PRN or per diem staff if assigned to the unit)**
- Work hours charged to the units cost center**
- Staff that have patient care responsibilities for a minimum of 50% of their shift**

Exclusions from numerator and denominator:

- **Staff whose primary responsibility is administrative in nature**
- **Specialty teams, patient educators or case managers who are not assigned to a specific unit**
- **Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation, and meeting/committee time greater than 1 hour**

Rationale: The skill mix of the nursing staff, typically expressed as the ratio of RNs to total nursing hours has been widely studied with respect to its effects on the quality of care. If the percentage of hours supplied by RNs is not adequate, less skilled staff may have to perform tasks for which they are not trained, thus increasing the risk of adverse patient outcomes. Examining the relationship between skill mix and processes and outcomes of care within health care organizations may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective mixture of staffing

FREQUENTLY ASKED QUESTIONS

- 1. In addition to her administrative responsibilities, our RN Nurse Manager assists nurses with patient care responsibilities as needed throughout the day. Should her hours be included in the numerator calculation?***

The role of the Nurse Manager or Nursing Supervisor varies significantly from one hospital to another, particularly from smaller hospitals to larger ones. If the Nurse Manager’s or Nursing Supervisor’s job description clearly identifies an expectation that the individual will devote a minimum of 50% of his/her productive hours to patient care responsibilities and if they charge their time to the unit cost center (and not to an administrative cost center), the Nurse Manager’s productive hours should be added to the numerator. If the Nursing Manager is simply “covering” the other nurses (e.g., “being available to LPNs) then those hours should not be considered “direct patient care” for purposes of reporting nursing care hours.

2. ***We have both a Clinical Nurse Specialist and Nurse Practitioner on staff in our nursing unit. Should their hours be included in the numerator calculation?***

Typically, APNs provide an additional patient care resource that is available to the unit staff, but are not considered part of the daily nursing care staffing pattern. Their hours should not be included in either the numerator or the denominator.

3. ***We have three RNs who work as an "IV Team." How should we count their hours?***

Nurses practicing on "IV Teams" or other similar expert resource teams typically provide an additional level of specialized clinical expertise in support of the staff nurse. As with APNs, the hours of nurses practicing on expert resource teams should not be included in either the numerator or the denominator.

4. ***There are RNs who work in our Radiology Department. How do we account for their hours?***

Although nurses practicing in diagnostic services areas may provide nursing care to inpatients, they are not part of the unit nursing staff, and their role is typically not considered when nurse staffing plans are prepared. The hours of these nurses should not be included in either the numerator or the denominator.

5. ***Should we report this information on a unit-by-unit basis, or are we expected to submit data for the entire hospital as one number?***

Data should be aggregated and reported by individual hospital units. See Appendix B, Eligible Unit Type Table.

6. ***Nursing staff frequently leave the unit for short periods of time to attend training or participate in other administrative functions. What is the smallest period of time which must be tracked (subtracted from direct patient care hours)?***

Any absence from the unit of less than or equal to an hour need not be subtracted from direct patient care hours. Any absence of more than one hour should be subtracted from the unit's direct patient care hours unless replaced by another staff member (replacement staff hours are then counted towards the unit total). Paid breaks of less than one hour

should be included as patient care hours. Time spent in shift change reporting should be included in patient care hours.

7. *We have a mini med/surg, virtual unit that occupies open beds on our maternity unit when beds are available and our med surg unit exceeds capacity. Nursing staff from the med/surg unit follow the patients to the maternity unit to provide direct patient care. How should we treat this "virtual" unit?*

When nursing staff from the med/surg unit follow patients to the mini med surg unit and maintain direct patient care, the mini med/surg unit should be considered an extension of the parent unit and their productive hours and patient days should be counted in the parent unit.

8. *My OB/GYN unit is used for overflow from the med surg. Unit when the beds are needed and available. The OB/GYN nurses are cross trained and provide care for the overflow patients. How should I treat this unit?*

OB units frequently provide care to a mixture of patient populations but the actual acuity level within the unit is typically similar. Therefore these units are not designated as mixed acuity units even if there are regularly more than two different patient populations on the unit. Also, overflow patients are excluded when choosing the unit patient population.

9. *Our hospital is on a payroll period that overlaps quarters. How do I determine the number of nursing care hours for the quarter?*

To calculate the quarterly rate for this measure a hospital should use one of the following options:

- Option 1:** Split in half (divide by 2) hours in pay periods that include 4 or more days in another quarter
- Option 2:** For pay periods that go across two quarters, divide the total number of hours in the overlapping pay period by 14 to get the average daily (one day) hours, then multiply by the number of days that belong to each quarter.

Example: A pay period runs from March 24th to April 6th and first quarter ends March 31st. Six days of the pay period belong to second quarter.

Using Option 1: Split in half so assign 40 hours to each quarter

Using Option 2: Divide total hours by 14

$80/14 = 5.71$ hours per day

Multiply the number of daily hours by the number of days in each quarter (8 days in first quarter and 6 days in second quarter)

**$8 \times 5.71 = 45.68$ hours in March (first quarter)
 $6 \times 5.71 = 34.26$ hours on April (second quarter)**

10. *How do I include nurses who are on orientation when determining RN care hours?*

Work hours of new employees who have completed orientation (but who may still be in probationary status) are counted under the nursing staffing measures under the correct education level (RN, LPN, or UAP hours per Inpatient Day).

11. *What hours should be included when determining non-productive hours?*

Paid time off including vacation, holiday, sick time/medical leave, orientation, education leave, and meeting/committee time greater than 1 hour should be considered non-productive. See definition for "Nursing Care Hours" for information on when orientation time can be considered productive.

12. *When calculating the total number of direct care hours, do we include all regular, overtime, double-time and call-back hours?*

As long as they are actual worked hours (not just "scheduled" hours) and are associated with direct patient care activities (not administrative tasks), they should be included. This assumes that "call-back" hours are direct care hours worked in the hospital after being called-back into the facility (not hours that a nurse might be on-call at home but not actually working). Be careful to ensure reporting of only the actual hours worked for "double-time" hours and that your

timekeeping system does not represent these as double the actual number of hours worked.

NSSC – 2: Percentage of LPN care hours to total nursing care hours.

Numerator: Number of productive hours worked by LPN nursing staff (employee and contract) with direct patient care responsibilities

Denominator: Number of total productive hours worked by RN, LPN, and UAP nursing staff (employee and contract) with direct patient care responsibilities

Inclusions:

- **Staff who are counted in the staffing matrix (including PRN or per diem staff if assigned to the unit)**
- **Work hours charged to the units cost center**
- **Staff that have patient care responsibilities for a minimum of 50% of their shift**

Exclusions from numerator and denominator:

- **Staff whose primary responsibility is administrative in nature**
- **Specialty teams, patient educators or case managers who are not assigned to a specific unit**
- **Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation, and meeting/committee time greater than 1 hour**

Rationale: The skill mix of the nursing staff, typically expressed as the ratio of RNs (LPNs/LVNs and UAPs) to total nursing hours has been widely studied with respect to its effects on the quality of care. If the percentage of hours supplied by RNs is not adequate, less skilled staff may have to perform tasks for which they are not trained, thus increasing the risk of adverse patient outcomes. Examining the relationship between skill mix

and processes and outcomes of care within health care organizations may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective mixture of staffing.

FREQUENTLY ASKED QUESTIONS

- 1. Our hospital does not permit LPN practice in the acute inpatient setting. We do, however, have a number of LPNs who are practicing at a level similar to that of a CNA on the acute inpatient unit. How do we account for their hours?*

For the purpose of assessing hospital staffing ratios and skill mix, all individuals on the inpatient nursing staff who have patient care responsibilities and who are LPNs in accordance with the definition provided in this document should be counted in the numerator and denominator for this metric.

NSSC – 3: Percentage of UAP care hours to total nursing care hours

Numerator: Number of productive hours worked by UAP staff (employee and contract) with direct patient care responsibilities

Denominator: Number of total productive hours worked by RN, LPN, and UAP nursing staff (employee and contract) with direct patient care responsibilities.

Inclusions:

- Staff who are counted in the staffing matrix (including PRN or per diem staff if assigned to the unit)
- Work hours charged to the units cost center
- Staff that have patient care responsibilities for a minimum of 50% of their shift

Exclusions from numerator and denominator:

- Staff whose primary responsibility is administrative in nature

- Specialty teams, patient educators or case managers who are not assigned to a specific unit
- Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation, and meeting/committee time greater than 1 hour

Rationale: The skill mix of the nursing staff, typically expressed as the ratio of RNs (LPNs/LVN,s and UAPs) to total nursing hours has been widely studied with respect to its effects on the quality of care. If the percentage of hours supplied by RNs is not adequate, less skilled staff may have to perform tasks for which they are not trained, thus increasing the risk of adverse patient outcomes. Examining the relationship between skill mix and processes and outcomes of care within health care organizations may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective mixture of staffing.

FREQUENTLY ASKED QUESTIONS

- 1. We have EMTs (Basic, Intermediate, and Paramedic) who assist on the inpatient nursing units. Are these EMS personnel considered UAPs for the purposes of this metric?***

EMS personnel must be considered UAPs and should be counted in both the numerator and denominator, if they have patient care responsibilities and are part of the staffing plan for any inpatient area.

- 2. In our nursery, we have volunteers who frequently come in to assist with feeding the newborns. Are they considered UAPs for the purpose of this metric?***

No. Volunteers are typically not considered part of the staffing plan for an inpatient unit.

- 3. Our facility does not have nurse assistants or nurses aides but we do have psychiatric technicians. Should we include or exclude our psychiatric technicians in this measure?***

Mental health/psychiatric workers or technicians (who may or may not be licensed should be counted) in your UAP care hours if they are engaged in direct care activities more than 50% of their time, they are replaced when they call in sick, and their hours are included in the nursing staff budget.

4. *How do we calculate Total Nursing Care Hours?*

Use the equation:

$$\text{Total Nursing Care Hours} = \text{RN Hours} + \text{LPN Hours} + \text{UAP Hours}$$

$\text{RN Hours} = \text{employee hours (hospital salaried)} + \text{contract (agency) hours}$

$\text{LPN Hours} = \text{employee hours (hospital salaried)} + \text{contract (agency) hours}$

$\text{UAP Hours} = \text{employee hours (hospital salaried)} + \text{contract (agency) hours}$

Example:

$\text{RN Hours} = 40 \text{ hours (employee hours)} + \underline{20 \text{ Hours (contractor hours)}}$
 $= 60 \text{ Hours}$

$\text{LPN Hours} = 20 \text{ hours (employee hours)} + \underline{10 \text{ Hours (contractor hours)}}$
 $= 30 \text{ Hours}$

$\text{UAP Hours} = 30 \text{ hours (employee hours)} + \underline{60 \text{ Hours (contractor hours)}}$
 $= 90 \text{ Hours}$

Using formula above:

$\text{Total Nursing Care Hours} = \text{RN Hours} + \text{LPN Hours} + \text{UAP Hours}$
 $\text{Total Nursing Care Hours} = 60 \text{ Hours} + 30 \text{ Hours} + 90 \text{ Hours} = \underline{180 \text{ Hours}}$

(Note: Includes $20 + 10 + 60 = 90$ Contract Hours)

Do NOT add Contract hours to formula because this would be counting them twice.

NSSC – 4: Percentage of contract care hours (RN, LPN, and UAP) to total nursing care hours

Numerator: Number of productive hours worked by contract (RN, LPN, and UAP) with direct patient care responsibilities.

Denominator: Number of total productive hours worked by RN, LPN, and UAP nursing staff (employee and contract) with direct patient care responsibilities.

Inclusions: Staff who are included in the staffing matrix, replaced if they call in sick and whose hours are charged to the unit but who are not employed by the facility and are paid by a 3rd party

Exclusions from numerator and denominator:

- Staff whose primary responsibility is administrative in nature
- Specialty teams, patient educators or case managers who are not assigned to a specific unit
- Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation, and meeting/committee time greater than 1 hour

Rationale: The ratio of contract hours to total nursing care hours can have an adverse affect on quality of care. Contract staff may not be as familiar with the hospital's procedures and may have an adverse impact on the continuity of care provided increasing the risk of adverse patient outcomes. Examining the relationship between use of contract staff and processes and outcomes of care may identify opportunities to improve care delivery, patient outcomes and provide evidence for determining the appropriate mixture of contract staffing.

FREQUENTLY ASKED QUESTIONS

1. *We have a number of nurses who work on a "Per Diem" basis (PRN, casual staff, etc.). Do we count their hours in nursing care hours? Do we count them as "contract" nurses or as employees?*

Direct patient care hours worked by nurses (RNs and LPNs) and UAPs who are employed by the hospital, whether full time, part time, or a "per diem" or "per shift" basis are to be included in nursing care hours. If the nurse or UAP is paid directly by the hospital, they are an employee. If the hospital pays a third party (agency) or has engaged the nurse or UAP through a time-limited contract with an agency, the nurse or UAP is "contracted." **The direct care hours worked by new employees on probationary status who have completed their orientation period are also included in the staffing hours measure.**

2. *We have a nurse who is here under contract, but the contract is for one year. Do we count her as an employee or as a contracted nurse?*

The key to the decision regarding where to allocate the hours is directly linked to the existence of a contract and payment to a third party (agency). The length of a contract does not alter the individual's status as a contractor however, if the individual is placed on the hospital payroll as an employee for this period, the nurse would be counted with other employees.

NSSC – 5: Number of RN care hours per inpatient day

Numerator: Number of productive hours worked by RN nursing staff, employee and contract, with direct patient care responsibilities

Denominator: Inpatient Days

Inclusions in numerator:

- Staff who are counted in the staffing matrix
- Work hours charged to the units cost center
- Staff that have patient care responsibilities for a minimum of 50% of their shift

Exclusions from numerator:

- **Staff whose primary responsibility is administrative in nature**
- **Specialty teams, patient educators or case managers who are not assigned to a specific unit**
- **Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation & committee/meeting time greater than 1 hour**

Rationale: Nursing care hours per patient day measures the supply of nursing relative to the patient workload. The relationship of nurse staffing to the quality of patient care and patient outcomes has been the subject of multiple research studies in recent years. The total number of nursing care hours per patient day reflects time constraints on nursing staff that can constrain quality of care, resulting in nurses being stressed, fatigued or distracted, increasing the risk for mistakes or omissions in care. Examining the relationship between nursing care hours, and processes and outcomes of care within health care organizations, may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective staffing levels.

NSSC – 6: Number of total nursing care hours (RN, LPN, UAP) per inpatient day

Numerator: Number of productive hours worked by nursing staff (RN, LPN, and UAP), employee and contract with direct patient care responsibilities

Denominator: Inpatient Days

Inclusions in numerator:

- **Staff who are counted in the staffing matrix**
- **Work hours charged to the units cost center**

- **Staff that have patient care responsibilities for a minimum of 50% of their shift**

Exclusions from numerator:

- **Staff whose primary responsibility is administrative in nature**
- **Specialty teams, patient educators or case managers who are not assigned to a specific unit**
- **Non-productive hours including paid time off, vacation, holiday, sick/medical leave, education, orientation & committee/meeting time greater than 1 hour**

Rationale: Nursing care hours per patient day measures the supply of nursing relative to the patient workload. The relationship of nurse staffing to the quality of patient care and patient outcomes has been the subject of multiple research studies in recent years. The total number of nursing care hours per patient day reflects time constraints on nursing staff that can constrain quality of care, resulting in nurses being stressed, fatigued or distracted, increasing the risk for mistakes or omissions in care. Examining the relationship between nursing care hours, and processes and outcomes of care within health care organizations, may identify opportunities to improve care delivery, patient outcomes, and provide an evidence base for determining the most effective staffing levels.

NSSC – 7a: Number of voluntary uncontrolled separations during the quarter for RNs and APNs

Numerator: Number of voluntary uncontrolled separations for RNs and APNs that were employed (full time or part time) on the first day of the quarter.

Denominator: Number of RNs and APNs employed (full time or part time) on the first day of the quarter.

Inclusions in Denominator:

- RNs and APNs engaged in direct patient care activities (50 % or more of their time spent on direct care responsibilities)

Exclusions from Denominator:

- Staff that are not unit based (not listed on unit payroll)
- Contractors, travelers, temporary agency staff
- Staff whose primary responsibility is administrative in nature
- New employees on probationary status
- Graduate nurses not yet licensed who have not been assigned a UAP position
- Consultants
- Sitters
- Students in a student role

Inclusions in Numerator:

- Transfers within the organization (between units in same the hospital)
- Separations based on compensation/pay, inability to advance, staffing or workload, dissatisfaction/conflict with team members, dissatisfaction/conflict with management, dissatisfaction with work environment, or perceived lack of respect

Exclusions from Numerator:

- Separations due to death, injury/ disability/ illness, relocation, family obligations, military service, education, retirement, joining travel agency, obtaining position for different job experience, obtaining position for more desirable work schedule, obtaining position for more desirable commute, promotions, performance, or discipline
- Cutbacks due to mergers, cyclical layoffs, or other permanent reductions in force

NSSC – 7b: Number of voluntary uncontrolled separations during the quarter for LPNs and UAPs

Numerator: Number of voluntary uncontrolled separations for LPNs and UAPs that were employed (full time or part time) on the first day of the quarter

Denominator: Number of LPNs and UAPs employed (full time plus part time) on the first day of the quarter

Inclusions in Denominator:

- Unlicensed assistive personnel, mental health technologists and treatment team coordinators engaged in direct patient care activities (50 % or more of their time spent on direct care responsibilities)

Exclusions from Denominator:

- Staff that are not unit based (not listed on unit payroll)
- Contractors, travelers, temporary agency staff
- Staff whose primary responsibility is administrative in nature
- New employees on probationary status
- Graduate nurses not yet licensed who have not been assigned a UAP position
- Consultants
- Sitters
- Students in a student role

Inclusions in Numerator:

- Transfers within the organization (between units in same the hospital)
- Separations based on compensation/pay, inability to advance, staffing or workload, dissatisfaction/conflict with team members, dissatisfaction/conflict with management, dissatisfaction with work environment, or perceived lack of respect

Exclusions from Numerator:

- Separations due to death, injury/ disability/ illness, relocation, family obligations, military service, education, retirement, joining travel agency, obtaining position for different job experience, obtaining position for more

- **desirable work schedule, obtaining position for more desirable commute, promotions, performance, or discipline**
• **Cutbacks due to mergers, cyclical layoffs, or other permanent reductions in force**

Rationale: Voluntary turnover within an organization that is due primarily to employee dissatisfaction with their job (including aspects such as compensation, work environment, team members, or management) and excluding other recognized causes of separation such as relocation, retirement, or termination is a widely recognized and highly specific, and more accurate measure for assessing employee separations than total turnover rate. It is correlated with levels of employee satisfaction and impacts the stability of staffing resources. Furthermore, with high patient to nurse ratios, nurses are more likely to experience increased emotional exhaustion (Aiken, et al.). Shortages of available hospital nurses make staff satisfaction and retention an even more critical issue for hospitals. Collection of voluntary turnover information allows healthcare organizations to focus on separations that are likely related to dissatisfaction. By assessing this important workforce issue, an organization may identify opportunities to improve job satisfaction, increase staff retention and maximize nursing resources.

FREQUENTLY ASKED QUESTIONS

- 1. We have a number of staff (nurses and others) on our employee roster who work on a Per Diem basis. Do we count them in the denominator of number of employees for the calculation for this metric?***

Per diem staff are not included in this measure even if they are listed on the unit payroll, are paid from the unit cost center, and permanent employees. Nursing staff must be permanent employees entitled to the rights of employee grievance procedures and are eligible for employee benefit programs (i.e., vacation, earned time, etc) to be included in the separation measure (and counted in the denominator for the unit to which they are assigned).

- 2. Should we include full time or part time nursing staff that are on leave of absence in the denominator?***

Yes. As long a member of the nursing staff who is on leave of absence, for any reason, is still considered by the organization to be a full time or part time **permanent** employee **AND they are eligible for benefits** the position should be included in the total number of nursing employees.

3. *If we have a nursing staff member who has been suspended for disciplinary reasons, should we count that position in the denominator?*

Yes. As long a nursing staff member who has been suspended is still considered by the organization to be a full time or part time **permanent** employee, the position should be included in the total number of employees.

4. *How do we account for "traveler" (contract) nurses who have left the organization because their contracts expired?*

Temporary or agency-contracted nursing staff, including consultants, travelers and other non-permanent staff, if not employees of the hospital during their tenure on the staff, are not included in the denominator. **Graduate nurses who are not yet licensed are excluded, as are new employees on probationary status (even if they have completed their orientation period). Note, however, that the direct care hours worked by new employees who have completed their orientation program (but may still be on probation) are included in the nursing care hours measures (NSSC-1, -2, -3, -4, -5, -6).**

5. *How do we account for float staff assigned to a "float pool"? These are not staff assigned to a specific unit's cost centers that might "float" to another unit when needed but are actually assigned to a separate cost center for the "float pool"?*

Float staff who are assigned to their own "float pool" cost center will not be counted in voluntary uncontrolled separations for NSI reporting. However the same float staff's hours will be included in the nursing care hours for each unit where they had direct patient care responsibilities during the quarter.

6. *If an employee gives notice on March 25th but the last day worked was April 15th, how do I count the separation (in the first quarter or in the second quarter)?*

The month of separation is based on *the last day worked*. In your example, the last day worked was April 15th, so the separation would

be counted in the month of April or the second quarter. If the employee worked March 25th, did not work after that, took a Leave of Absence, and resigned on April 15th, then the separation would be counted in the month of March since that was the last day worked.

7. *It is difficult to track which reasons for separation are included in this measure. Is there a list?*

See Appendix A for the Voluntary Uncontrolled Separation Data Elements Table. It lists all the different reasons why an employee would leave a position and a check box indicates whether the reason is included in the voluntary uncontrolled separation measure.

UNIT DESIGNATION

FREQUENTLY ASKED QUESTIONS

- 1. What are the types of unit designations that may be used when reporting our data?**

The available unit designations include:

Adult and Pediatric Inpatient	<i>Adult</i> Limited to units generally caring for patients over 16 years old.
	<i>Pediatric</i> Limited to units caring for patients under 18 years old.

- **Critical Care**

Highest level of care includes all types of intensive care units. Optional specialty designations include: Burn, Cardiothoracic, Coronary Care, Medical, Neurology, Pulmonary, Surgical, and Trauma ICU. **Requires at least 90% of patients in unit be of same acuity.**

- **Step-Down**

Limited to units that provide care for patients requiring a lower level of care than critical care units do and higher level of care than provided on medical/surgical units. Examples include progressive care or intermediate care units. Telemetry is not an indicator of acuity level. Optional specialty designations include: Med-Surg, Medical or Surgical Step-Down units. **Requires at least 90% of patients in unit be of same acuity.**

- **Medical**

Units that care for patients admitted to medical services, such as internal medicine, family practice, or cardiology. Optional specialty designations include: BMT, Cardiac, GI, Infectious Disease, Neurology, Oncology, Renal or Respiratory Medical units. **Requires at least 90% of patients in unit be of same acuity.**

- **Surgical**

Units that care for patients admitted to surgical services, such as general surgery, neurosurgery, or orthopedics. Optional specialty designations include: Bariatric, Cardiothoracic, Gynecology, Neurosurgery, Orthopedic, Plastic Surgery, Transplant or Trauma Surgical unit. Requires at least 90% of patients in unit be of same acuity.

- **Med/Surg Combined**

Units that care for patients admitted to either medical or surgical services. Optional specialty designations include: Cardiac, Neuro/Neurosurgery or Oncology Med-Surg combined units. Requires at least 90% of patients in unit be of same acuity.

- **Skilled Nursing**

Based on the distinction made by Medicare payment policies, which differentiate skilled nursing, acute care, and rehabilitation.

- **Obstetrics**

Units that care for pregnant patients. Optional specialty designations include: Ante-partum, Labor and Delivery, Mother-Baby combined units, and Post-partum units. OB units frequently provide care to a mixture of patient populations (obstetrics, labor/delivery, gynecological surgery, pediatrics, and well babies) however the actual acuity level within the unit is typically similar. Therefore these units are not designated as mixed acuity units even if there are regularly more than two different patient populations on the unit.

- **Mixed Acuity**

Units in which the acuity of the patient population varies more than 10%. Units designated as universal bed concept units are also considered Mixed Acuity.

- **Critical Access Unit**

Unit located in a Critical Access Hospital that cares for a combination of patients that may include critical care, medical-surgical, skilled nursing (swing-bed) and/or obstetrics.

- 2. We have a unit that regularly accepts overflow patients from other units as beds are available. How shall we classify or designate this unit for measurement purposes?*

The determination of unit designation should be done on a quarterly basis for reporting for that quarter. Exclude overflow patients when choosing the unit patient population. If the unit routinely cares for two different patient populations, assign the patient population of the majority of patient care beds. When no single acuity level accounts for at least 90% of the patients, the unit should be designated as a mixed acuity unit.

- 3. When can the unit designation "mixed acuity" be used?*

When no single acuity level accounts for at least 90% of the patients, the unit should be designated as a mixed acuity unit. This includes units following the universal bed concept such as burn units caring for patients from critical admission to discharge.

- 4. We are a Critical Access Hospital and previously reported our mixed acuity unit data under the category, "Critical Access Hospitals - Mixed Acuity" unit on the NSI Excel Transmittal Workbook. Now that the NSI data specifications have been revised to align with the NDNQI, how do we report data for our mixed acuity units?*

NSI data for mixed acuity units in Critical Access Hospitals should now be reported as "Critical Access Units" on the same line that was previously used for "Critical Access Hospitals - Mixed Acuity" unit near the top of the Excel Workbook.

REFERENCES

1. National Quality Forum National Voluntary Consensus Standards for Nursing-Sensitive Care: An Initial Performance Measure Set Appendix A – Specifications of the National Voluntary Consensus Standards for Nursing-Sensitive Care 2004.
2. American Nurses Association, National Database of Nursing Quality Indicators: *Guidelines for Data Collection and Submission on Quarterly Indicators, Version 8.1. April 2008.*
3. 90-590 Maine Health Data Organization Chapter 270: Uniform Reporting System For Quality Data Sets, October 2005.
4. National Pressure Ulcer Advisory Panel (NPUAP). *Pressure Ulcer Stages Revised by NPUAP*, February 2007, <http://www.npuap.org/pr2.htm>
5. Last, John M. 2001. *A Dictionary of Epidemiology*, 4th ed, R. A. Spasoff, S.S. Harris and M.C. Thuriaux eds. Oxford: Oxford University Press.
6. *Implementation Guide for the NQF Endorsed Nursing-Sensitive Care Performance Measures, 2005*; Joint Commission on Accreditation of Healthcare Organizations.

Appendix A

Voluntary Uncontrolled Separation Data Elements Table

Numerator - Primary Reason for Separation	Reason Included in NSSC-7-a and -b
Death	
Retirement	
Military service obligations	
Spouse/partner move from area	
Employee initiated move from area	
Join travel agency	
Cutbacks or workforce reduction	
Performance or discipline	
Job related injury/disability/illness	
Non-job related injury/disability/illness	
Family obligations	
Pursue education	
Obtain position representing a different job experience	
Obtain position with a more desirable work schedule	
Obtain with a more desirable commute	
Compensation/pay	X
Inability to advance	X
Staffing or workload	X
Dissatisfaction with or conflict with team members	X
Dissatisfaction with or conflict with management	X
Dissatisfaction with work environment	X
Perceived lack of respect	X
Other reason	
Unknown reason	

An "X" indicates these reasons for separation are included in the Voluntary Uncontrolled Separation measures (NSSC-7-a and -b).

Appendix B Eligible Unit Type Table

Population and Unit Type Categories	Indicators				
	NSPC-1 Hospital-Acquired Pressure Ulcer	NSPC-2, 3 Falls and Falls with Injury	NSCP-4 Vest or Limb Restraint	NSSC-1, 2, 3, 4, 5, 6 Skill Mix and Care Hours Per Patient Day	NSSC-7 Voluntary Uncontrolled Separations
Critical Access Hospitals – "CAH - Mixed Acuity Units" now called "Critical Access Units"	X	X	X	X	X
Neonatal					
Level III/IV Critical Care				X	X
Level II Intermediate				X	X
Level I Continuing Care				X	X
Well Baby Nursery					X
Mixed Acuity					X
Pediatric					
Critical Care-Pediatric				X	X
Step Down				X	X
Medical				X	X
Surgical				X	X
Med/Surg Combined				X	X
Mixed Acuity	X	X	X	X	X
Adult					
Critical Care-Adult	X	X	X	X	X
Step Down	X	X	X	X	X
Medical	X	X	X	X	X
Surgical	X	X	X	X	X
Med/Surg Combined	X	X	X	X	X
Obstetrics					X
Skilled Nursing Unit					X
Mixed Acuity	X	X	X	X	X

Population and Unit Type Categories	Indicators				
	NSPC-1 Hospital-Acquired Pressure Ulcer	NSPC-2, 3 Falls and Falls with Injury	NSCP-4 Vest or Limb Restraint	NSSC-1, 2, 3, 4, 5, 6 Skill Mix and Care Hours Per Patient Day	NSSC-7 Voluntary Uncontrolled Separations
Psychiatric					
Adult				X	X
Adolescent				X	X
Child/Adolescent				X	X
Child				X	X
Geopsych				X	X
Behavioral Health (includes Eating Disorder and Chemical Dependency Units)				X	X
Specialty				X	X
Multiple Unit Types				X	X
Other Psychiatric Unit					X
Rehab					
Adult	X	X	X	X	X
Pediatric					X
Mixed Acuity	X	X	X	X	X
Other					
Ambulatory Care					
Emergency Dept					
Intervention Unit					
Peri-operative					
Other Unit					

Appendix C

Prevalence Study Methodology

General Information

The time and staff required to do a prevalence study depends on the size of the hospital and the units as well as the study team's experience in conducting the observation, extracting required data elements from the clinical record and documenting the information. Experienced sites have indicated that the prevalence study process requires some learning at first and benefits from a core group of staff that is very skilled in the study area. This greatly improves the validity and reliability of the data.

Other suggestions include the pairing of less experienced staff with experts, in teams, to provide a rich teaching/learning experience and as a valuable competency development strategy. It is also important that the study team(s) has (have) at least one planning/training session prior to the day on which the study is conducted. For those organizations that are members of a multi-hospital system, it may be beneficial to consider the development of an expert team to travel between hospitals. In this way, the expertise and efficiency of the prevalence study is maximized. Another suggestion is to have sites mentor one another – so if this is your organization's first prevalence study, consider observing, first hand, another site conduct their prevalence study. The insight and experience gained can then be applied as your organization plans and conducts its own first study. Finally, some hospitals have found it convenient to conduct the pressure ulcer and restraint prevalence studies at *the same time*.

Prevalence Study Procedures

1) Assign a coordinator

A coordinator should be selected who has organizational, problem-solving and leadership skills. Responsibilities of the coordinator include communications, selecting the study date, finalizing the data collection tool, training the data collectors, managing questions/concerns, and assuring the data are collated. The coordinator should ensure that all observers are trained in the study methodology and observation techniques. The coordinator should also monitor inter-rater (between observers) reliability as an important component of data quality assessment.

When scheduling the prevalence studies for the Hospital-Acquired Pressure Ulcer and Vest and Limb Restraint measures, the coordinator should ensure they are conducted once per quarter on any Tuesday, Wednesday, or Thursday within the second month of the quarter (February, May, August, or November).

2) Determine Who Will Conduct the Study

a. *Pressure Ulcer Prevalence*: A combination of exempt nurses with current clinical skills (e.g. ET nurses, clinical nurse specialists, educators, and unit managers) and staff nurse experts should be considered for the inspection team. Chart review may be conducted concurrently by other staff with skill in reading documentation. Using a “team” for the observation portion of the study may be helpful for conducting skin inspection (e.g., to help turn immobile patients for inspection). To help Implementation decrease the likelihood of bias in observation, consider assigning observation team members to study units other than their regularly assigned work unit. Resources required will vary based on the efficiency of the teams and the amount of data desired by the facility.

Source: Guide for the NQF D -2, Joint Commission, 2005 Endorsed Nursing-Sensitive Care Performance Measures

b. *Restraint Use Prevalence*: To help decrease the likelihood of bias in observation, consider assigning observation team members to study units other than their regularly assigned work unit. Resources required will vary based on the efficiency of the teams and the amount of data desired by the facility.

3) Train Those Who Will Conduct the Study

a. *Pressure Ulcer Prevalence*: Training in skin inspection and pressure ulcer staging is required prior to study participation. One option would be to have an ET nurse or clinical expert organize a training session on the National Pressure Ulcer Advisory Panel (NPUAP) staging schema.

b. *Restraint Use Prevalence*: Not applicable.

4) Observation

a. *Pressure Ulcer Prevalence*: Inspect all bony prominences including the traditional areas such as the coccyx but also areas such as heels, elbows, ears, and posterior cranium on bedridden patients. If using teams, be sure one person is a skin expert. Any pressure ulcers found are staged and recorded on the data collection tool. Facilities may opt to also measure/photograph ulcers for their quality programs.

b. *Restraint Use Prevalence*: Each patient on the assigned unit is observed (i.e., observations are not to be referred by staff for those patients thought to be restrained).

5) Chart Review

a. *Pressure Ulcer Prevalence*: Each patient’s chart is also reviewed for demographic data, documentation relative to risk assessment and, if the Braden Scale is used, Total

and Subscale Scores on admission for all patients with Stage I or greater ulcers. Sites may also decide to inspect documentation related to skin care or other standards. Various other quality management studies may be combined with the prevalence study and data specific to those may also be included in the chart review.

b. *Restraint Use Prevalence*: Each patient's chart is also reviewed for documentation relative to the clinical justification for use of a restraint or sitter. Additional information such as other interventions, patient's condition and length of time in restraints may be useful to collect for additional analysis.

6) Data Collection Tools

a. *Pressure Ulcer Prevalence*: Data should be recorded (whether or not pressure ulcers were noted) for each patient whose skin is observed during the prevalence study. These data include both the patient observation findings and the chart review findings. If different team members are doing the observing and chart review, it is helpful to have the data collection tool divided into distinct portions (each with a patient identifier) and two systems for tracking which patients have been completed (observers and chart reviewers proceed at different paces).

Source: Implementation Guide for the NQF D -3, Joint Commission, 2005 Endorsed Nursing-Sensitive Care Performance Measures

b. *Restraint Use Prevalence*: Data should be recorded (whether or not restraints were noted) for each patient. These data include both the observation findings and chart review findings. If different team members are doing the observing and chart review, it is helpful to have the data collection tool divided into distinct portions (each with a patient identifier) and two systems for tracking which patients have been completed (observers and chart reviewers proceed at different paces).

7) Data Submission

a. *Pressure Ulcer Prevalence*: After the chart review and patient observation have been completed, data collection tools should be checked for accuracy, and completeness. Completed study data should be submitted using a defined procedure for internal analysis or following procedures as defined for external data submission.

b. *Restraint Use Prevalence*: After the chart review and patient observation have been completed, data collection tools should be checked for accuracy, and completeness. Completed study data should be submitted using a defined procedure developed for internal analysis or following procedures as defined for external data submission.

Source: California Nursing Outcomes Coalition Project *Codebook, Acute Care*, January 1, 2005.

Appendix D

Excel File Naming Convention for NSI Data Submission

The Naming Convention for the Nursing Sensitive Indicators data files is as follows. Please name your Excel file before submission using the format as noted below:

NSI-XXXXXX-2008QTR1 for data generated in January, February, and March of 2008 and due to the Maine Health Data Organization (MHDO) no later than September 1st 2008.

NSI-XXXXXX-2008QTR2 for data from April, May, and June of 2008 and due to the MHDO no later than December 1st 2008.

NSI-XXXXXX-2008QTR3 for data from July, August, and September of 2008 and due to the MHDO no later than March 1st 2009.

NSI-XXXXXX-2008QTR4 for data from October, November, and December of 2008 and due to the MHDO no later than June 1st 2009.

The data file naming will continue in the same fashion for future quarters and years of data.

Where **XXXXXX** in the file name is the hospital's MHDO ID Number as listed below.

MHDO ID Number	HOSPITAL NAME
200004	Acadia Hospital
200018	Aroostook Medical Center
200051	Blue Hill Memorial Hospital
200007	Bridgton Hospital
200023	C.A. Dean Memorial Hospital
200055	Calais Regional Hospital
200031	Cary Medical Center
200024	Central Maine Medical Center
200057	Dorothea Dix Psychiatric Center
200027	Down East Community Hospital
200033	Eastern Maine Medical Center
200037	Franklin Memorial Hospital
200040	Goodall Hospital
200026	Houlton Regional Hospital
200041	Inland Hospital
200050	Maine Coast Memorial Hospital

200009	Maine Medical Center
200015	MaineGeneral Medical Center - Augusta
200015	MaineGeneral Medical Center - Waterville
200066	Mayo Regional Hospital
200008	Mercy Hospital
200044	Mid Coast Hospital
200002	Miles Memorial Hospital
200003	Millinocket Regional Hospital
200038	Mount Desert Island Hospital
200010	New England Rehabilitation Hospital
200052	Northern Maine Medical Center
200025	Parkview Adventist Medical Center
200063	Penobscot Bay Medical Center
200062	Penobscot Valley Hospital
200012	Redington-Fairview General Hospital
200056	Riverview Psychiatric Center
200016	Rumford Hospital
200028	Sebasticook Valley Hospital
200019	Southern Maine Medical Center
200067	Spring Harbor Hospital
200006	St Andrews Hospital
200001	St Joseph Hospital
200034	St Mary's Regional Medical Center
200032	Stephens Memorial Hospital
200013	Waldo County General
200020	York Hospital