The DHS MN Risk-Adjusted Quality Indicators: A Brief Guide

DHS measures 26 quality indicators (QIs) from your facility’s MDS assessments. These MN QIs allow for a better picture of the true quality of care provided in a facility, as they adjust scores for differences in the number and type of residents served, as well as differences due to seasonal variation. At the same time, the MN QIs were designed to largely overlap with the Federal QI/QMs used in the survey inspection process, to avoid creating a completely new quality system for facilities to manage. The MN QIs are used for public reporting (as a 5-star Total Score on the MN Nursing Home Report Card Web site) and as outcomes in quality improvement projects. Here are three steps to help boost your facility’s MN QI scores.

Step 1: Find your facility’s weakest (or strongest) MN QI links
While all MN QIs represent important aspects of care delivery, it can be hard to know which to focus on. To help, DHS posts detailed MN QI reports every 3 months (15-30 days after the end of each quarter) on the secure DHS Nursing Facility Provider Portal Web site. To sign into the site, contact your facility’s administrator for the username and password (if needed, DHS is happy to resend that information to them). When you or the administrator gets the username and password, go to https://nfportal.dhs.state.mn.us/, log in, and click on the “MN Quality Indicators” link at the top of the page to browse and save or print the reports. See the end of this document for a sample report.

Among other information, the reports highlight any QI areas where your facility is particularly strong or weak.
- Column 6, “Facility Rank on Risk-Adjusted Rate,” shows your facility’s rank on each MN QI compared to the rest of the state; for all QIs, a lower number (e.g., “1 of 383”) is better.
- Columns 7 and 8, “Domain Points - 10” and “Facility QI Points,” show your facility’s total points earned in each care domain out of a possible 10 and on each MN QI; QIs earning full points are marked with a “happy face” while those earning no points are marked with a “sad face.”

Step 2: Understand the MN QIs
Once you’ve taken a look at your facility’s performance on its MN QI reports, it is important to understand the MN QIs, including the logic behind how they are calculated and the MDS items included.

You can find definitions of the MN QIs in the next part of this Brief Guide or by visiting http://www.dhs.state.mn.us/main/id_051946 and clicking the link “*NEW* 3.0 MN Quality Indicators and Adjustors – Detailed Description (DOC)”.

- **Like** the Federal QI/QMs, the MN QI rates are the percentage of residents with a particular condition in your facility (that is, # of residents with a condition / # of total observed residents). Half are **prevalence QIs** that trigger if residents have a condition at one point in time, and half are **incidence QIs** that trigger if residents’ conditions get worse or better or stay at the worst or best level over the past 90 days. Some residents are excluded from the QIs due to missing information or predisposing conditions. Information is taken from each resident’s last assessment in a given quarter (compared to their assessment 90 days prior for incidence QIs), with information automatically rolling forward from the last full assessment if needed.
- **Unlike** the Federal QI/QMs, the MN QIs were designed to monitor facility performance rather than the care of individual residents, so DHS does not produce reports of which residents “trigger”. Also, MN QI rates are averaged over four quarters versus one month or one-to-three quarters, and are statistically
adjusted using resident characteristics that put them at particular risk for having the condition, both of which provide a more accurate picture of care quality.

Sometimes knowing what items are used in the MN QI definitions can make a big difference in their scores. Here are three common examples.

- For “Prevalence of Occasional to Full Bladder Incontinence without a Toileting Plan (LS),” facilities may not be aware that they can check “toileting trial attempt” (H0220A) or “current program/trial” (H0220C) if appropriate under RAI manual guidelines, which will prevent these residents from triggering the QI.
- For “Prevalence of Unexplained Weight Loss (LS),” checking “physician-prescribed weight-loss program” (K0300 = 1) if warranted under RAI guidelines excludes these residents as their weight loss is desired.
- For “Prevalence of New or Worsening Pressure Sores (SS),” only those pressure sores (M0800) that develop in the facility are counted; if residents enter a facility with sores which are cured on subsequent assessment, the facility will likely score well.

**Step 3: Look for root causes**

Once you have your facility’s MN QI scores and have an idea how they are calculated, the real challenge – and opportunity – lies in looking for their root causes or the “real reasons” why you believe the particular condition is more or less common in your facility. Consider what residents are most-likely to have the particular care issue (using Federal resident-level CASPER reports if desired), and ask “What are the reasons why this might have happened?” For example:

- If the Psychosocial QIs are a challenge, your facility might try consistent staff assignment for more reliability, predictability, and relationship-building among staff, residents, and families. In determining assignments, it may be very helpful to get staff input on their needs and preferences to set the stage for good matches.
- If your facility is struggling with “Prevalence of Falls with Injury,” you could revisit call light policies and procedures to ensure that all available staff answer them and meet residents’ needs (or follow up with staff that can).
- If your facility has a high rate of pressure ulcer development as measured by the Short and Long Stay Pressure Ulcer QIs, you might weigh the time and resources spent on pressure sore treatment that could be spent on prevention.
- If the Physical Functioning QIs are a weak spot, it may be worth spreading good Activities of Daily Living practices across departments and shifts to maximize resident’s chances to practice these important skills.

The examples above use areas where facilities need to improve, but the same approach works wonderfully in finding the “root causes” of excellent care. For free or low-cost educational assistance on quality improvement in clinical care, quality of life and other important areas, please contact Kim Class, RN, Quality Improvement Coordinator, at (651) 431-2274 or Kimberly.Class@state.mn.us. For more information on how the MN QIs are calculated and scored, please contact Teresa Lewis, Research Scientist, at (651) 431-4208 or Teresa.Lewis@state.mn.us.

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*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
MN Nursing Facility

Quality Indicators and Risk-Adjusters:
Detailed Description and Appendix Defining Sample and Assessment Selection

Updated May 2014

NEW EDITS since last version:

(edits shown as additions / strike-throughs in the definitions)

1) p. 12 – Bladder Incontinence w/o Plan – toileting plan (H0200A) and trial (H0200C) are no longer exclusions, correcting error

2) p. 22 – Antipsychotics w/o Diagnosis – Bipolar Disorder and Tourette’s added again to exclusions, that were mistakenly left off in transition to MDS 3.0 QIs

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Minnesota Risk-Adjusted Quality Indicators: A Brief Summary

The Minnesota Department of Human Services (DHS) measures 26 quality indicators (QIs) from nursing facility Minimum Data Set (MDS) assessments. The MN QIs were designed to largely overlap with the Federal QI/QMs used in the survey inspection process, to avoid creating a completely new quality system for facilities to manage. At the same time, the MN QIs allow for a better picture of the true quality of care provided in a facility, as they adjust scores for differences in the number and type of residents served, as well as differences due to seasonal variation. The MN QIs are used for public reporting on the MN Nursing Home Report Card Web site (http://nhreportcard.dhs.mn.gov/), as outcomes in facility quality improvement projects, and in long-term care research and policy development.

- **Like** the Federal QI/QMs, the MN QI rates are the percentage of residents with a condition (# of residents with a condition / # of total observed residents). Half are *prevalence QIs* that trigger if residents have a condition at one point in time, and half are *incidence QIs* that trigger if residents’ conditions get worse or better or stay at the worst or best level over the past 90 days. Some residents are excluded from the QIs due to missing items or predisposing conditions. Information is taken from each resident’s last assessment in a given quarter (compared to their assessment 90 days prior for incidence QIs), with items automatically pulled from the last full assessment if needed.

- **Unlike** the Federal QI/QMs, the MN QIs were designed to monitor facility performance rather than the care of individual residents, so DHS does not produce reports of which residents “trigger”. Also, MN QI rates are averaged over four quarters versus one month or one-to-three quarters, and are statistically adjusted using resident characteristics that put them at particular risk for having the condition, both of which provide a more accurate picture of care quality.

DHS posts detailed MN QI reports for facilities every 3 months on the secure DHS Nursing Facility Provider Portal Web site (https://nfportal.dhs.state.mn.us/). Please contact Teresa Lewis at 651-431-4208 or Teresa.Lewis@state.mn.us for facility access to the site or if you have questions or comments about the MN QIs.

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
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Incidence of Worsening or Serious Resident Behavior Symptoms (Long Stay)*

Derived from MDS 2.0 QI BA_BEH4: however, includes residents with highest level of behavior symptoms

1. NUMERATOR (Increase in physical, verbal or other behavioral symptom’s frequency, or all behavioral symptoms were and remained daily)
   a. T2.E0200A > T1.E0200A OR
   b. T2.E0200B > T1.E0200B OR
   c. T2.E0200C > T1.E0200C OR
   d. ALL INDICATORS ARE 3 AT BOTH INTERVALS

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. Missing Items
      i. ALL numerator items MISSING at either T1 or T2
   c. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. A_CVA
   d. A_DEPR
   e. A_BIPOLAR
   f. A_ALZH
   g. A_DEMT
   h. C_MSUN
   i. C_UNDS
   j. FEMALE
   k. AGE
   l. LOSQ

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Prevalence of Depression Symptoms (Long Stay)*

Similar to MDS 2.0 QI CMOD03; however, different scoring system and depression measures alter definition substantially

1. NUMERATOR (substantial indication of self-reported depression on PHQ9 or staff-observed depression on PHQ9-OV)
   a. SCORE_1
      i. D0200A2 <2 AND D0200B2 <2 THEN SCORE -5
      ii. FOR EACH ITEM D0200A2 through D0200I2 > 1 SCORE 1
      iii. D0100 = 0 THEN SCORE -99
      iv. SUM ABOVE SCORES
   b. SCORE_2
      i. D0500A2 <2 AND D0500B2 <2 THEN SCORE -5
      ii. FOR EACH ITEM D0500A2 through D0500I2 > 1 SCORE 1
      iii. D0100 = 1 THEN SCORE -99
      iv. SUM ABOVE SCORES
   c. SCORE_1 >= 5 OR
   d. SCORE_2 >= 5

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. A_CVA
   d. C_EATING
   e. C_MSUN
   f. A_ALZH
   g. A_DEMT
   h. FEMALE
   i. AGE
   j. LOSQ

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Physical Restraints (Long Stay)*

Equivalent to MDS 2.0 QI BA_RES1

1. NUMERATOR (Daily use of trunk, limb or chair restraints, NOT including bed rails or other restraints)
   a. T2.P0100B = 2 OR
   b. T2.P0100C = 2 OR
   c. T2.P0100E = 2 OR
   d. T2.P0100F = 2 OR
   e. T2.P0100G = 2

2. DENOMINATOR
   a. ALL RESIDENTS EXCEPT EXCLUSIONS

3. EXCLUSIONS
   a. Missing Items
      i. No numerator item that is present = 1 AND
      ii. One or more numerator items are missing
   b. Short Stay

4. ADJUSTERS
   a. LOSQ
   b. FEMALE
   c. AGE
   d. RES1_ADJ_01: T2.E0200A>0

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Bowel Incontinence (Long Stay)*

Derived from MDS 2.0 QI BA_CNT2: however, changes in continence items and includes residents with highest level of incontinence

1. NUMERATOR (Increase in bowel incontinence, or remained fully incontinent)
   a. T2.H0400 > T1.H0400 OR
   b. T1.H0400 = 3 AND T2.H0400 = 3

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J1400 = 1
   c. Hospice Care
      i. T2.00100K1 = 1 OR
      ii. T2.00100K2 = 1
   d. Ostomy
      i. T2.H0100C = 1
   e. Paraplegia/Quadriplegia
      i. T2.I5000 = 1 OR
      ii. T2.I5100 = 1
   f. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. C_BED_MOB
   d. C_TRANSFER
   e. C_LOCOM_ON
   f. FEMALE
   g. AGE
   h. LOSQ

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T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Bladder Incontinence (Long Stay)*

Derived from MDS 2.0 QI BA_CNT3: however, changes in continence items and includes residents with highest level of incontinence

1. Numerator (Increase in bladder incontinence, or continued full incontinence)
   a. T2.H0300 > T1.H0300 OR
   b. T2.H0300 = 3 AND T1.H0300 = 3

2. Denominator
   a. All residents not excluded

3. Exclusions
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J1400 = 1
   c. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   d. Ostomy
      i. T2.H0100C = 1
   e. Paraplegia/Quadriplegia
      i. T2.I5000 = 1 OR
      ii. T2.I5100 = 1
   f. Short Stay

4. Adjusters
   a. C_BIMS
   b. C_CPS
   c. C_BED_MOB
   d. CTRANSFER
   e. C_LOCOM_ON
   f. FEMALE
   g. AGE
   h. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Improved or Maintained Bowel Continence (Long Stay)*

Derived from MDS 2.0 QI MN_CNT7: however, changes in continence items and includes residents with highest level of continence

1. NUMERATOR (Improved bowel continence or continued full bowel continence)
   a. T2.H0400 < T1.H0400 OR
   b. T2.H0400 = 0 AND T1.H0400 = 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J1400 = 1
   c. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   d. Ostomy
      i. T2.H0100C = 1
   e. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. C_BED_MOB
   d. C_TRANSFER
   e. C_LOCOM_ON
   f. FEMALE
   g. AGE
   h. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

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T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Improved or Maintained Bladder Continence (Long Stay)*

Derived from MDS 2.0 QI MN_CNT8: however, changes in continence items and includes residents with highest level of continence

1. NUMERATOR (Improved bladder continence or continued full bladder continence)
   a. $T2.H0300 < T1.H0300 \text{ OR}$
   b. $T2.H0300 = 0 \text{ AND } T1.H0300 = 0$

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. $T2.B0100 = 1$
   b. End Stage Prognosis
      i. $T2.J1400 = 1$
   c. Hospice Care
      i. $T2.O0100K1 = 1 \text{ OR}$
      ii. $T2.O0100K2 = 1$
   d. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. C_BED_MOB
   d. C_TRANSFER
   e. C_LOCOM_ON
   f. FEMALE
   g. AGE
   h. LOSQ

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Occasional to Full Bladder Incontinence without a Toileting Plan (Long Stay)*

Different from MDS 2.0 QI MN_CNT9; affected by changes in incontinence items

1. NUMERATOR (Occasional to full bladder incontinence, no toileting plan)
   a. T2.H0200A = 0 OR T2.H0200C = 0 (no toileting plan) AND
   b. T2.H0300 in (1,2,3)

2. DENOMINATOR
   a. ALL RESIDENTS EXCEPT EXCLUSIONS

3. EXCLUSIONS
   a. Toileting Independence or Complete Continence
      i. T2.G0110I1 = 0
      ii. OR T2.H0300 = 0
   b. Toileting Trial Program: Current
      i. T2.H0200A = 1
   c. Toileting Trial Program: Prior (if missing on current)
      i. T1.H0200A = 1
   d. Toileting Program
      i. T2.H0200C = 1
   e. Short Stay

4. ADJUSTERS
   a. LOSQ
   b. FEMALE
   c. AGE

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Occasional to Full Bowel Incontinence without a Toileting Plan (Long Stay)*

Different from MDS 2.0 QI MN_CNT9; affected by changes in incontinence items

1. NUMERATOR (Occasional to full bowel incontinence, no toileting plan)
   a. T2.H0500 = 0 (no toileting plan) AND
   b. T2.H0400 in (1,2,3)

2. DENOMINATOR
   a. ALL RESIDENTS EXCEPT EXCLUSIONS

3. EXCLUSIONS
   a. Toileting Independence or Complete Continence
      i. T2.G0110I1 = 0
      ii. OR T2.H0400 = 0
   b. Ostomy
      i. T2.H0100C = 1
   c. Short Stay

4. ADJUSTERS
   a. LOSQ
   b. FEMALE
   c. AGE

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Prevalence of Indwelling Catheter (Long Stay)*

Equivalent to MDS 2.0 QI BA_CAT2 (slight change in exclusions)

1. NUMERATOR (Indwelling catheter)
   a. T2.H0100A = 1

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. End Stage Prognosis
      i. T2.J1400 = 1
   b. Hospice Care
      i. T2.00100K1 = 1 OR
      ii. T2.00100K2 = 1
   c. Neurogenic Bladder
      i. T2.I1550 = 1
   d. Obstructive Uropathy
      i. T2.I1650 = 1
   e. Short Stay

4. ADJUSTERS
   a. A_CVA
   b. A_PARAP
   c. A_QUADP
   d. FEMALE
   e. AGE
   f. LOSQ

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Prevalence of Urinary Tract Infection (Long Stay)*

Equivalent to MDS 2.0 QI BA_CNT4

1. NUMERATOR (UTI in last 30 days)
   a. T2.I2300 = 1

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. End Stage Prognosis
      i. T2.J1400 = 1
   b. Hospice Care
      i. T2.00100K1 = 1 OR
      ii. T2.00100K2 = 1
   c. Short Stay

4. ADJUSTERS
   a. A_CVA
   b. A_PARAP
   c. A_QUADP
   d. C_LOCOM_ON
   e. FEMALE
   f. AGE
   g. LOSQ

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Prevalence of Infections (Long Stay)*

Equivalent to MDS 2.0 QI BA_INFX

1. NUMERATOR (Presence of one or more of the following: multidrug-resistant organism; pneumonia; septicemia; viral hepatitis; or wound infection)
   a. T2.I1700 = 1 OR
   b. T2.I2000 = 1 OR
   c. T2.I2100 = 1 OR
   d. T2.I2400 = 1 OR
   e. T2.I2500 = 1

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. End Stage Prognosis
      i. T2.J1400 = 1
   b. Hospice Care
      i. T2.00100K1 = 1 OR
      ii. T2.00100K2 = 1
   c. Missing Items
      i. No numerator item that is present = 1 AND
      ii. One or more numerator items are missing
   d. Short Stay

4. ADJUSTERS
   a. A_CVA
   b. A_PARAP
   c. A_QUADP
   d. C_LOCOM_ON
   e. FEMALE
   f. AGE
   g. LOSQ

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Prevalence of Falls with Major Injury (Long Stay)*

Different from MDS 2.0 QI BA_FAL1; change in definition and in item structure

1. NUMERATOR (One or more falls with significant injury since admission/prior assessment)
   a. T2.J1900C in (1,2)

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Short Stay

4. ADJUSTERS
   a. C_CPS
   b. C_BIMS
   c. P_BED_MOB
   d. P_TRANSFER
   e. P_WALKROOM
   f. P_WALKCORR
   g. P_LOCOM_ON
   h. P_LOCOMOFF
   i. P_DRESSING
   j. P_EATING
   k. P_TOILET
   l. P_HYGIENE
   m. P_BATHING
   n. A_HYPOT
   o. A_CVA
   p. A_HEMIP
   q. A_PARAP
   r. A_PARK
   s. A_SEIZ
   t. A_EYES
   u. C_COMA
   v. FEMALE
   w. AGE
   x. LOSQ

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Unexplained Weight Loss (Long Stay)*

Equivalent to MDS 2.0 QI BA_WGT1 (changes in Section K item structure may affect results)

1. NUMERATOR (Weight loss of 10% or more in last 6 months without physician’s diet order)
   a. T2.K0300 = 2

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. End Stage Prognosis
      i. T2.J1400 = 1
   b. Hospice Care
      i. T2.O0100K1 = 1 OR
         ii. T2.O0100K2 = 1
   c. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. C_COMA
   d. A_CANCER
   e. FEMALE
   f. AGE
   g. LOSQ

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Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of New or Worsening Pressure Ulcers (Short Stay)*

New QI

1. NUMERATOR (Any new or worsening pressure ulcers at discharge since prior/entry)
   a. T2.M0800A > 0 OR
   b. T2.M0800B > 0 OR
   c. T2.M0800C > 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. T2 not a discharge assessment
      i. T2.A0310F not in (10,11)
   b. Missing Items
      i. ALL of (T2.M0800A, T2.M0800B, T2.M0800C) are MISSING
   c. Long Stay

4. ADJUSTERS
   a. C_COMA
   b. P_BED_MOB
   c. P_TRANSFER
   d. P_PRUX
   e. A_MALN
   f. C_TERM
   g. A_ULC_RES
   h. FEMALE
   i. AGE
   j. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Percent of High-Risk Residents with Pressure Ulcers (Long Stay)*

New QI

1. NUMERATOR (Presence of Stage 2 or higher pressure ulcer)
   a. ANY OF (T2.M0300B1, T2.M0300C1, T2.M0300D1) > 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Not At High Risk of Pressure Ulcer
      i. Not dependent in bed mobility: T2.G0110A1 not in (3,4,8) AND
      ii. Not dependent in transfer: T2.G0110B1 not in (3,4,8) AND
      iii. Not comatose: T2.B0100 not = 1 AND
      iv. Not malnourished: T2.I5600 not = 1
   b. Missing Items
      i. ALL of (T2.M0300B1, T2.M0300C1, T2.M0300D1) are MISSING
   c. Missing High Risk Items
      i. ALL of (T2.G0110A1, T2.G0110B1, T2.B0100, T2.I5600) are MISSING
   d. Short Stay

4. ADJUSTERS
   a. C_COMA
   b. C_TERM
   c. A_ULC_RES
   d. P_PRUX
   e. FEMALE
   f. AGE
   g. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Healed Pressure Ulcers (Long Stay)*

Derived from MDS 2.0 QI MN_PRU2; definition is similar but not identical

1. NUMERATOR (Any Stage 2, 3, or 4 ulcers that have healed since prior assessment)

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. No Pressure Ulcers on Prior Assessment
      i. T2.M0900A = 0
   b. Short Stay

4. ADJUSTERS
   a. C_COMA
   b. C_TERM
   c. FEMALE
   d. AGE
   e. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Antipsychotic Medications without a Diagnosis of Psychosis (Long Stay)*

Equivalent to MDS 2.0 QI MN_DRG1

1. NUMERATOR (Use of antipsychotic medication at least once in the last week)
   a. T2.N0400A > 0 OR T2.N0410A > 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Missing data for N0400A/N0410A
   b. Psychosis or related Dx: Schizophrenia, Tourette’s Syndrome, Huntington’s Disease, Bipolar Disorder, Hallucinations, Psychotic Disorder
      i. ANY OF (T2.I6000, T2.I5350, T2.I5250, T2.I5900, T2.E0100A, T2.I5950) = 1
   c. Tourette’s Syndrome on prior assessment where missing on current assessment
      i. T1.I5350 = 1
   d. Other Affective Psychosis Dx
      i. ANY OF (T2.I08000A-J) = 296.34
   e. End Stage Prognosis
      i. T2.J1400 = 1
   f. Hospice Care
      i. T2.00100K1 = 1 OR
      ii. T2.00100K2 = 1
   g. Short Stay

4. ADJUSTERS
   a. FEMALE
   b. AGE
   c. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions
Incidence of Improved or Maintained Functional Independence (Long Stay)*

Derived from MDS 2.0 QI MN_ADLS: however, changes to coding of ADL items and includes least-dependent residents

1. NUMERATOR (For Bed Mobility, Transfer, Locomotion on Unit, Dressing, Eating, Toileting, and Hygiene, QI triggered on decrease in sum of scores or continued total independence in all ADLs)
   a. SCORE functioning at T2 and T1
      i. SCORE 4 when ADL item in (4,8)
      ii. SCORE item value when ADL item 0-3
      iii. SCORE 0 when ADL item = 7
      iv. SCORE MISSING when ADL item is MISSING
      v. ITEMS = (G0110A1, G0110B1, G0110E1, G0110G1, G0110H1, G0110I1, G0110J1)
      vi. SCORE = sum of individual item scores
   b. T2.SCORE < T1.SCORE OR
   c. T2.SCORE = 0 AND T1.SCORE = 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. End Stage Prognosis
      i. T2.J1400 = 1
   b. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   c. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. A_ALZH
   d. C_COMA
   e. A_CVA
   f. A_HEMIP
   g. A_PARAP
   h. A_PARK
   i. FEMALE
   j. AGE
   k. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Functional Dependence (Long Stay)*

Derived from MDS 2.0 QI BA_ADL1: however, changes to coding of ADL items and inclusion of most-dependent residents

1. NUMERATOR (For Bed Mobility, Transfer, Eating, and Toileting, two or more declined by 1 step, one declined by 2 or more steps, or all were already at full dependency and remained there)
   a. RECODE G0110A1, G0110B1, G0110H1, and G0110I1 at both T1 and T2 so that
      i. VALUE = 8 THEN 4
      ii. VALUE = 7 THEN 0
   b. CALCULATE DIFFERENCE (T2.VALUE – T1.VALUE) FOR EACH ITEM
   c. NUMERATOR IS
      i. ANY ONE DIFF VALUE > 1 OR
      ii. ANY TWO OR MORE DIFF VALUES > 0 OR
      iii. ALL T1.VALUES = 4 AND ALL T2.VALUES = 4

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J1400 = 1
   c. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   d. Quadriplegia
      i. T2.I5100 = 1
   e. Missing Items
      i. ALL numerator items MISSING at either T1 or T2
   f. Short Stay

4. ADJUSTERS
   a. P_BEDMOB
   b. P_TRANSFER
   c. P_EATING
   d. P_TOILET
   e. C_BIMS

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Functional Dependence (Long Stay)* (con’d)

Derived from MDS 2.0 QI BA_ADL1: however, changes to coding of ADL items and includes most-dependent residents

- C_CPS
- A_CVA
- A_HEMIP
- A_PARAP
- A_PARK
- A_ALZH
- FEMALE
- AGE
- LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target

Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Walking as Well or Better than at Previous Assessment (Long Stay)*

MDS 2.0 QI BA_WALX; changes to coding of ADL items substantially alter definition

1. NUMERATOR (Walking in Room/Corridor ADL maintained or improved walking independence)
   a. RECODE G0110D1 and G0110C1 at both T1 and T2
      i. VALUE = 8 THEN 4
      ii. VALUE = 7 THEN 0
   b. CHOOSE LOWER OF C/D RECODED VALUES AT T1
   c. COMPARE THE PAIR FOR THE LESS IMPAIRED WALKING ADL ITEM
   d. T2.VALUE <= T1.VALUE AND
   e. T1.VALUE not = 4 AND T2.VALUE not = 4

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J14000 = 1
   c. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   d. Lack of Walking/Balance
      i. T2.G0300A = 8 OR T2.G0300B = 8
   e. Missing Items: BOTH ITEMS are MISSING at either T1 or T2
   f. Short Stay

4. ADJUSTERS
   a. A_ARTHR
   b. A_PARAP
   c. A_HEMIP
   d. A_CVA
   e. A_PARK
   f. A_HIPFRAC
   g. FEMALE
   h. AGE
   i. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Mobility Dependence (Long Stay)*

Derived from MDS 2.0 QI BA_MOB1: however, changes to coding of ADL items and includes most-dependent residents

1. NUMERATOR (Increased dependence or continued total dependence in Locomotion on Unit)
   a. RECODE G0110E1 at T2 and T1
      i. G0110E1 = 8 THEN 4
      ii. G0110E1 =7 THEN 0
   b. T2.G0110E1 < T1.G0110E1 OR
   c. BOTH VALUES = 4

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Comatose
      i. T2.B0100 = 1
   b. End Stage Prognosis
      i. T2.J1400 = 1
   c. Hospice Care
      i. T2.O0100K1 = 1 OR
      ii. T2.O0100K2 = 1
   d. Quadriplegia
      i. T2.I5100 = 1
   e. Missing Items
      i. T1.G0110E1 is MISSING AND T2.G0110E1 > 0
   f. Short Stay

4. ADJUSTERS
   a. A_ARTHR
   b. A_PARAP
   c. A_HEMIP
   d. A_CVA
   e. A_PARK
   f. A_HIPFRAC
   g. FEMALE
   h. AGE
   i. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Incidence of Worsening or Serious Range of Motion Limitation (Long Stay)*

Derived from MDS 2.0 QI CHSRA18; however, changes in ROM items and includes residents with highest ROM limitation

1. NUMERATOR (Increase in ROM limitation or continued bilateral impairment of both upper & lower extremities)

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Quadriplegia
      i. \(T2.I5100 = 1\)
   b. Missing Items
      i. BOTH ITEMS are MISSING at either T1 or T2
   c. Short Stay

4. ADJUSTERS
   a. C_BIMS
   b. C_CPS
   c. A_ARThR
   d. A_PARAP
   e. A_QUADP
   f. A_HEMIP
   g. A_CVA
   h. A_PARK
   i. A_MS
   j. C_COMA
   k. FEMALE
   l. AGE
   m. LOSQ

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*
Decrease in Pain when Admitted on a Pain Medication Regimen (Short Stay)*

New QI; also, pain items substantially restructured

1. NUMERATOR (Pain medication on admit, and decrease in self-reported pain at discharge)
   a. T1.J0100A (Pain medication at admission) AND
      i. T2.J0400 < T1.J0400 OR
      ii. T2.J0600A < T1.J0600A OR
      iii. T2.J0600B < T1.J0600B OR
      iv. T2.J0300 = 0

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. No prior assessment, or admit/discharge on same assessment
      i. T1 is MISSING OR
      ii. T2 = T1
   b. No pain on admission or no drugs on admission
      i. T1.J0100A = 0 OR
      ii. T1.J0300 = 0
   c. Missing Items – resident unable to report
      i. J0400 is MISSING at either/both T2 and T1 AND
      ii. J0600A is MISSING at either/both T2 and T1 AND
      iii. J0600B is MISSING at either/both T2 and T1
   d. Long Stay

4. ADJUSTERS
   a. A_ARTHR
   b. A_CANCER

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Residents Who Report Moderate to Severe Pain (Short Stay)*

New QI; also, pain items substantially restructured

1. NUMERATOR (Self-reported moderate to severe pain)
   a. T2.J0200 = 1 AND
      i. T2.J0400 in (1,2) AND T2.J0600A > 4 OR
      ii. T2.J0400 in (1,2) AND T2.J0600B in (2,3) OR
      iii. T2.J0600A >= 8 OR
      iv. T2.J0600B = 4

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Not Self-report
      i. T2.J0200 is MISSING OR
      ii. T2.J0200 = 0 OR
      iii. T2.J0300 = 9
   b. Missing Items
      i. T2.J0300 = 1 AND
      ii. T2.J0400 is MISSING
   c. Missing Items
      i. T2.J0300 = 1 AND
      ii. T2.J0600A is MISSING AND
      iii. T2.J0600B is MISSING
   d. Long Stay

4. ADJUSTERS
   a. A_ARTHR
   b. A_CANCER

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
Prevalence of Residents Who Report Moderate to Severe Pain (Long Stay)*

Equivalent to MDS 2.0 QI BA_PAIX; however, substantial restructuring of pain items and only includes residents who can self-report

1. NUMERATOR (Self-reported moderate to severe pain)
   a. T2.J0200 = 1 AND
      i. T2.J0400 in (1,2) AND T2.J0600A > 4 OR
      ii. T2.J0400 in (1,2) AND T2.J0600B in (2,3) OR
      iii. T2.J0600A >= 8 OR
      iv. T2.J0600B = 4

2. DENOMINATOR
   a. ALL RESIDENTS NOT EXCLUDED

3. EXCLUSIONS
   a. Not Self-report
      i. T2.J0200 is MISSING OR
      ii. T2.J0200 = 0 OR
      iii. T2.J0300 = 9
   b. Missing Items
      i. T2.J0300 = 1 AND
      ii. T2.J0400 is MISSING
   c. Missing Items
      i. T2.J0300 = 1 AND
      ii. T2.J0600A is MISSING AND
      iii. T2.J0600B is MISSING
   d. Short Stay

4. ADJUSTERS
   a. A_ARTHR
   b. A_CANCER

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
APPENDIX A: Risk-Adjusters and Sample and Assessment-Selection Definitions

1. LOSQ – Length of Stay in Quarters
   a. Calculated as datediff(q,T2.A1600,T2.A2300)
2. FEMALE
   a. Calculated as T2.A0800 = 2
3. AGE
   a. Calculated as datediff(yyyy,T2.A0900,T2.A2300)
   b. Must be converted to decile for adjustment
4. C_CPS - CPS score at T2
   a. Calculated using B0100, C0500, C0700, C1000, G0110H1, and B0700. See Appendix B for details.
5. P_CPS – CPS score at T1
   a. Calculated using B0100, C0500, C0700, C1000, G0110H1, and B0700. See Appendix B for details.
6. C_BIMS – BIMS score at T2
   a. Calculated as T2.C0500
7. P_BIMS – BIMS score at T1
   a. Calculated as T1.C0500
8. A_CVA – Any CVA/Stroke
   a. Calculated as I4500 = 1 at any of T2, T1, T0
9. A_DEPR – Any Depression
   a. Calculated as I5800 = 1 at any of T2, T1, T0
10. A_BIPOLAR – Any Bipolar Disorder
    a. Calculated as I5900 = 1 at any of T2, T1, T0
11. A_ALZH – Any Alzheimer’s Disease
    a. Calculated as I4200 = 1 at any of T2, T1, T0
12. A_DEMT – Any Non-Alzheimer’s Dementia
    a. Calculated as I4800 = 1 at any of T2, T1, T0
13. A_HEMIP – Any Hemiplegia/Hemiparesis
    a. Calculated as I4900 = 1 at any of T2, T1, T0
14. C_MSUN – Makes self understood at T2
    a. Calculated as T2.B0700
15. C_UNDS – Understands others at T2
    a. Calculated as T2.B0800
16. C_BED_MOB – Bed Mobility self performance at T2
    a. Calculated as RECODE
       i. T2.G0110A1 in (0,1,2,3) THEN T2.G0110A1
       ii. ELSE T2.G0110A1 = 8 THEN 4

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
iii. ELSE $T2.G0110A1 = 7$ THEN 0
iv. ELSE MISSING

17. $P_{BED\_MOB}$ – Bed Mobility self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110A1$

18. $C_{TRANSFER}$ – Transfer self performance at $T_2$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T2.G0110B1$

19. $P_{TRANSFER}$ – Transfer self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110B1$

20. $P_{WALKROOM}$ – Walking in room self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110C1$

21. $P_{WALKCORR}$ – Walking in corridor self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110D1$

22. $C_{LOCOM\_ON}$ – Locomotion on unit self performance at $T_2$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T2.G0110E1$

23. $P_{LOCOM\_ON}$ – Locomotion on unit self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110E1$

24. $P_{LOCOMOFF}$ – Locomotion off unit self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110F1$

25. $P_{DRESSING}$ – Dressing self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110G1$

26. $C_{EATING}$ – Eating self performance at $T_2$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T2.G0110H1$

27. $P_{EATING}$ – Eating self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110H1$

28. $P_{TOILET}$ – Toileting self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110I1$

29. $P_{HYGIENE}$ – Hygiene self performance at $T_1$
   a. See $C_{BED\_MOB}$ for recode method
   b. Calculated based on $T1.G0110J1$

30. $P_{BATHING}$ – Bathing self performance at $T_1$

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*

$T2 =$ the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
$T1 =$ the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
a. Calculated as RECODE
   i. \( T1.G0120A \) in \( \{0,1,2,3,4\} \) THEN \( T1.G0120A \)
   ii. ELSE \( T1.G0120A = 8 \) THEN 4
   iii. ELSE MISSING
b. Calculated based on \( T1.G0120A \)

31. A_PARAP – Any Paraplegia
   a. Calculated as \( I5000 = 1 \) at any of \( T2, T1, T0 \)

32. A_QUADP – Any Quadriplegia
   a. Calculated as \( I5100 = 1 \) at any of \( T2, T1, T0 \)

33. A_HYPOT – Any Orthostatic Hypotension
   a. Calculated as \( I0800 = 1 \) at any of \( T2, T1, T0 \)

34. A_PARK – Any Parkinson’s Disease
   a. Calculated as \( I5300 = 1 \) at any of \( T2, T1, T0 \)

35. A_SEIZ – Any Seizure disorder
   a. Calculated as \( I5400 = 1 \) at any of \( T2, T1, T0 \)

36. A_EYES – Any Cataracts, Glaucoma, or Macular Degeneration
   a. Calculated as \( I6500 = 1 \) at any of \( T2, T1, T0 \)

37. P_PRUX – Pressure sores present at \( T1 \)
   a. Calculated as \( T1.M0210 \)

38. C_COMA – Current Comatose State
   a. Calculated as \( T2.B0100 = 1 \)

39. A_MALN – Any Malnutrition
   a. Calculated as \( I5600 = 1 \) at any of \( T2, T1, T0 \)

40. C_TERM – End-Stage Disease, < 6 months prognosis at \( T2 \)
   a. Calculated as \( T2.J1400 = 1 \)

41. A_ULC_RES – Any Resolved Pressure Sores
   a. Calculated as \( M0900A = 1 \) OR \( M0900B > 0 \) OR \( M0900C > 0 \) OR \( M0900D > 0 \) at any of \( T2, T1, T0 \)

42. A_CANCER – Any Cancer
   a. Calculated as \( I0100 = 1 \) at any of \( T2, T1, T0 \)

43. A_ARTHR – Any Arthritis
   a. Calculated as \( I3700 = 1 \) at any of \( T2, T1, T0 \)

44. A_HIPFRAC – Any Hip Fracture
   a. Calculated as \( I3900 = 1 \) at any of \( T2, T1, T0 \)

45. A_MS – Any Multiple Sclerosis
   a. Calculated as \( I5200 = 1 \) at any of \( T2, T1, T0 \)

46. A_DEM_COMBO – Any combination of Alzheimer’s and non-Alzheimer’s dementia
   a. Calculated as \( I4200 = 1 \) and \( I4800 = 1 \) at any one or more of \( T2, T1, T0 \)

47. RUGBEH_T1 – Behavioral Problem RUG group at \( T1 \)
   a. Calculated as \( T1.RUG_HIER \) in \( \{BA1, BA2, BB1, BB2\} \)

48. RUGCLN_T1 – Clinically Complex RUG Group at \( T1 \)
   a. Calculated as \( T1.RUG_HIER \) in \( \{CA1, CA2, CB1, CB2, CC1, CC2\} \)

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*
49. RUGCOG_T1 – Cognitive Impairment RUG Group at T1
   a. Calculated as T1.RUG_HIER in (IA1, IA2, IB1, IB2)
50. RUGIDX_T1 – Index-maximizing 34-group RUG III calculated at T1
51. RUGHIER_T1 – Hierarchal 34-group RUG II calculated at T1
52. RUGCMI_T1 – Case Mix Index value assigned for RUGIDX_T1

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*
Calculation of Cognitive Performance Scale (CPS) Score

1. Input Variables
   a. Comatose State (B0100)
   b. BIMS Score (C0500)
   c. Staff Assessment of Short Term Memory (C0700)
   d. Staff Assessment of Decision Making Impairment (C1000)
   e. Eating ADL Self-performance (G0110H1)
   f. Ability to make self understood (B0700)

2. Calculation Variables
   a. Comatose State (COMA)
   b. Decision Making (DECIDE)
   c. Eating Independence (EAT)
   d. Making Self Understood (UNDERSTOOD)
   e. Short Term Memory (MEMORY)

3. Recoding of variables
   a. COMA
      i. B0100 = 1
      ii. THEN 1
      iii. ELSE 0
   b. DECIDE
      i. C0500 is present
      ii. THEN
          1. C0500 between 0 and 9
          2. THEN DECIDE = 2
          3. ELSE C0500 between 10 and 15
          4. THEN DECIDE = 0
          5. ELSE DECIDE = MISSING
      iii. ELSE C1000 is missing or 0
      iv. THEN DECIDE = MISSING
      v. ELSE C1000 > 0
      vi. THEN DECIDE = C1000
      vii. ELSE DECIDE = MISSING
   c. EAT
      i. G0110H1 is missing
      ii. THEN EAT = MISSING
      iii. ELSE G0110H1 = 7
      iv. THEN EAT = 0 (QUESTION – is this correct recode?)
      v. ELSE G0110H1 in (4,8)
      vi. THEN EAT = 4
      vii. ELSE G0110H1 between 0 and 3
      viii. THEN EAT = G0110H1

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*
ix. ELSE EAT = MISSING

d. UNDERSTOOD
   i. C0500 is present
   ii. THEN
       1. C0500 between 0 and 9
       2. THEN UNDERSTOOD = 1
       3. ELSE C0500 between 10 and 15
       4. THEN UNDERSTOOD = 0
       5. ELSE UNDERSTOOD = MISSING
   iii. ELSE B0700 is missing or 0
   iv. THEN UNDERSTOOD = MISSING
   v. ELSE B0700 > 0
   vi. THEN UNDERSTOOD = B0700
   vii. ELSE UNDERSTOOD = MISSING

e. MEMORY
   i. C0500 is present
   ii. THEN
       1. C0500 between 0 and 9
       2. THEN MEMORY = 1
       3. ELSE C0500 between 10 and 15
       4. THEN MEMORY = 0
       5. ELSE MEMORY = MISSING
   iii. ELSE C0700 is missing or 0
   iv. THEN MEMORY = MISSING
   v. ELSE C0700 > 0
   vi. THEN MEMORY = B0700
   vii. ELSE MEMORY = MISSING

4. Calculate CPS
   a. any of the calculation variables (COMA, DECIDE, EAT, UNDERSTOOD, MEMORY) is MISSING
   b. THEN CPS = MISSING
   c. ELSE COMA = 1 (in coma)
   d. THEN CPS = 6
   e. ELSE IF
      i. DECIDE = 3 AND (decision making severely impaired)
      ii. EAT >= 4 (totally dependent)
   f. THEN CPS = 6
   g. ELSE IF
      i. DECIDE = 3 AND (decision making severely impaired)
      ii. EAT between 0 and 3 (any independence in eating)
   h. THEN CPS = 5
   i. ELSE IF
      i. DECIDE = 2 AND (decision making moderately impaired)
ii. UNDERSTOOD between 2 and 3 (rarely or sometimes understood)

j. THEN CPS = 4

k. ELSE IF
   i. DECIDE = 2 AND (decision making moderately impaired)
   ii. UNDERSTOOD = 1 (usually understood)

l. THEN CPS = 3

m. ELSE IF
   i. DECIDE = 2 AND (decision making moderately impaired)
   ii. MEMORY = 1 (memory problem)

n. THEN CPS = 3

o. ELSE IF
   i. DECIDE > 0 AND (any decision making impairment)
   ii. UNDERSTOOD > 1 (rarely or sometimes understood)

p. THEN CPS = 3

q. ELSE IF
   i. UNDERSTOOD > 1 AND (rarely or sometimes understood)
   ii. MEMORY = 1 (memory problem)

r. THEN CPS = 3

s. ELSE IF
   i. DECIDE = 1 AND (modified independence)
   ii. UNDERSTOOD = 1 (usually understood)

t. THEN CPS = 2

u. ELSE IF
   i. DECIDE = 1 AND (modified independence)
   ii. MEMORY = 1 (memory problem)

v. THEN CPS = 2

w. ELSE IF
   i. UNDERSTOOD = 1 AND (usually understood)
   ii. MEMORY = 1 (memory problem)

x. THEN CPS = 2

y. ELSE IF
   i. UNDERSTOOD > 0 OR (not always understood)
   ii. DECIDE > 0 OR (any impaired decision making)
   iii. MEMORY > 0 (memory problem)

z. THEN CPS = 1

aa. ELSE CPS = 0

*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions

T2 = the OBRA or Medicare non-tracking assessment of any type closest to the end of the target quarter
T1 = the prior OBRA or Medicare non-tracking assessment of any type closest to 90 days before the target
 Unless noted, residents excluded if information is missing or their status is not rated on any MDS item shown
**Short vs. Long Stay Sample Definition and Assessment Selection**

The Minnesota risk-adjusted QIs use CMS QM rules to define “Short Stay” versus “Long Stay” QIs. These as well as more detail on assessment selection can be found at


The Minnesota risk-adjusted QIs and the CMS QMs have moved from using assessment types to a new approach of counting a resident’s cumulative days in the facility (CDIF) during a given episode. (Episodes start with an admission and end with a discharge return not anticipated, return anticipated but resident doesn’t return, or death in the facility.)

The system then selects residents’ most-recent episode that either 1) has ended during the target quarter or is 2) ongoing at the end of the target quarter.

For these residents, the system adds their cumulative days in the facility (CDIF) mentioned above.

1) IF the resident’s CDIF is less than or equal to 100 days, they’re included in the SHORT STAY QIs.
2) IF the resident’s CDIF is greater than or equal to 101 days, they’re included in the LONG STAY QIs.

A resident will either be in the Short Stay or the Long Stay QIs and will NEVER be in both in any given QI report, although this could change in their next quarter’s report.

Significantly, this allows any OBRA or Medicare in-facility or discharge non-tracking assessment that includes clinical information to be used as the source of QI information at both the target and prior time periods (i.e. assessment types A0310A = [01, 02, 03, 04, 05, 06] or A0310B = [01, 02, 03, 04, 05, 06] or A0310F = [10, 11]). Again, for more detail on assessment selection, please see


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*See Appendix A on Pg. 39 for Short/Long Stay and risk adjuster definitions*
<table>
<thead>
<tr>
<th>Domain</th>
<th>Quality Indicator (LS) = Long Stay, (SS) = Short Stay</th>
<th>Current Rate for Full</th>
<th>Current Rate for No</th>
<th>Observed Facility Rate</th>
<th>Risk-adjusted Facility</th>
<th>Risk-adjusted State Avg</th>
<th>Facility Rank on Risk-adjusted</th>
<th>Domain Points - 10</th>
<th>Facility QI Points</th>
<th>Possible QI Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychosocial</td>
<td>Incidence of Worsening or Serious Resident Behavior Problems (LS)</td>
<td>7.9252%</td>
<td>22.4663%</td>
<td>5.61058%</td>
<td>6.03271%</td>
<td>13.8303%</td>
<td>38 of 368</td>
<td>9.11</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Psychosocial</td>
<td>Prevalence of Depressive Symptoms (LS)</td>
<td>0.4593%</td>
<td>5.3267%</td>
<td>1.35593%</td>
<td>1.32805%</td>
<td>2.47147%</td>
<td>151 of 368</td>
<td>4.11</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Prevalence of Physical Restraints (LS)</td>
<td>0.1091%</td>
<td>2.8042%</td>
<td>0%</td>
<td>0.08666%</td>
<td>0.88621%</td>
<td>41 of 368</td>
<td>10.00</td>
<td>10.00</td>
<td>6.00</td>
</tr>
<tr>
<td>Continence</td>
<td>Incidence of Worsening or Serious Bowel Incontinence (LS)</td>
<td>20.3684%</td>
<td>37.3716%</td>
<td>31.7829%</td>
<td>28.2317%</td>
<td>27.0768%</td>
<td>211 of 368</td>
<td>0.77</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Incidence of Worsening or Serious Bladder Incontinence (LS)</td>
<td>16.6433%</td>
<td>41.7101%</td>
<td>35.5212%</td>
<td>32.2275%</td>
<td>25.9878%</td>
<td>271 of 368</td>
<td>0.54</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Incidence of Improving or Maintained Bowel Continence (LS)</td>
<td>50.7232%</td>
<td>39.4148%</td>
<td>38.6466%</td>
<td>52.4974%</td>
<td>25.9643%</td>
<td>51 of 368</td>
<td>1.43</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Incidence of Improving or Maintained Bladder Continence (LS)</td>
<td>33.6022%</td>
<td>18.1223%</td>
<td>32.5842%</td>
<td>38.8006%</td>
<td>27.6131%</td>
<td>30 of 368</td>
<td>5.54</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Prevalence of Occ to Full Bladder Incontinence w/o a Toiling Plan (LS)</td>
<td>40.7968%</td>
<td>91.475%</td>
<td>36.6666%</td>
<td>96.5835%</td>
<td>66.3706%</td>
<td>364 of 364</td>
<td>0.00</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Prevalence of Occ to Full Bowel Incontinence w/o a Toiling Plan (LS)</td>
<td>70.9422%</td>
<td>96.3206%</td>
<td>37.9020%</td>
<td>97.7595%</td>
<td>80.7834%</td>
<td>341 of 366</td>
<td>0.00</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Continence</td>
<td>Prevalence of Indwelling Catheters (LS)</td>
<td>0.728%</td>
<td>6.4966%</td>
<td>3.83882%</td>
<td>0.93741%</td>
<td>3.00306%</td>
<td>89 of 368</td>
<td>1.38</td>
<td>1.43</td>
<td></td>
</tr>
<tr>
<td>Infections</td>
<td>Prevalence of Urinary Tract Infections (LS)</td>
<td>2.0155%</td>
<td>8.9766%</td>
<td>1.49812%</td>
<td>1.55573%</td>
<td>4.82494%</td>
<td>54 of 368</td>
<td>8.40</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Infections</td>
<td>Prevalence of Infections (LS)</td>
<td>0.9652%</td>
<td>6.1579%</td>
<td>2.24719%</td>
<td>2.62382%</td>
<td>3.07783%</td>
<td>209 of 368</td>
<td>3.40</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Accidents</td>
<td>Prevalence of Falls with Injury (LS)</td>
<td>0.885%</td>
<td>7.3461%</td>
<td>1.49253%</td>
<td>1.35988%</td>
<td>3.42423%</td>
<td>93 of 369</td>
<td>9.27</td>
<td>9.27</td>
<td>10.00</td>
</tr>
</tbody>
</table>

*N/A - Missing QI's - Points rescaled to 10 per domain; if missing QI(s) are in a single domain (e.g. Falls), facility total score will be rescaled to 100 points.*
# Frostbite Falls – Sample MN Quality Indicator Report

**January 1, 2013 to December 31, 2013**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Quality Indicator (LS) = Long Stay, (SS) = Short Stay</th>
<th>Current Rate for Full</th>
<th>Current Rate for No</th>
<th>Observed Facility Rate</th>
<th>Risk-adjusted Facility</th>
<th>Risk-adjusted State Avg</th>
<th>Facility rank on Risk-adjusted Points - 10</th>
<th>Domain Points - 10</th>
<th>Facility QI Points</th>
<th>Possible QI Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>Prevalence of Unexplained Weight Loss (LS)</td>
<td>2.8061%</td>
<td>9.5689%</td>
<td>1.87265%</td>
<td>1.85993%</td>
<td>5.38521%</td>
<td>42 of 368</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Pain</td>
<td>Incidence of Decrease in Pain when on Pain Medication at Admit (SS)</td>
<td>61.9619%</td>
<td>34.0311%</td>
<td>30.4166%</td>
<td>60.4319%</td>
<td>50.9579%</td>
<td>40 of 158</td>
<td>3.15</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td>Prevalence of Moderate to Severe Pain (SS)</td>
<td>17.5492%</td>
<td>38.4401%</td>
<td>21.4286%</td>
<td>21.3093%</td>
<td>26.2554%</td>
<td>109 of 362</td>
<td>6.75</td>
<td>0.40</td>
<td>3.33</td>
</tr>
<tr>
<td>Pain</td>
<td>Prevalence of Moderate to Severe Pain (LS)</td>
<td>9.3535%</td>
<td>27.3481%</td>
<td>21.0045%</td>
<td>22.6543%</td>
<td>16.4850%</td>
<td>294 of 368</td>
<td>0.87</td>
<td>3.33</td>
<td></td>
</tr>
<tr>
<td>Skin Care</td>
<td>Prevalence of New or Worsening Pressure Sores (SS)</td>
<td>0.5829%</td>
<td>3.5552%</td>
<td>1.95238%</td>
<td>0.34960%</td>
<td>1.67916%</td>
<td>21 of 244</td>
<td>5.00</td>
<td>5.00</td>
<td></td>
</tr>
<tr>
<td>Skin Care</td>
<td>Prevalence of Pressure Sores in High Risk Residents (LS)</td>
<td>1.9725%</td>
<td>6.3274%</td>
<td>2.28136%</td>
<td>2.80368%</td>
<td>3.80982%</td>
<td>119 of 351</td>
<td>9.05</td>
<td>4.05</td>
<td>5.00</td>
</tr>
<tr>
<td>Skin Care</td>
<td>Incidence of Cured Pressure Sores (LS)</td>
<td>49.1318%</td>
<td>21.809%</td>
<td>N/A</td>
<td>N/A</td>
<td>41.4127%</td>
<td>N/A of 19</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Psychotropics</td>
<td>Prevalence of Antipsychotic Medications Without a Diagnosis of</td>
<td>3.9415%</td>
<td>18.0493%</td>
<td>2.97872%</td>
<td>3.20816%</td>
<td>9.31157%</td>
<td>50 of 361</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Functioning</td>
<td>Incidence of Improving or Maintained Functional Independence (LS)</td>
<td>36.8484%</td>
<td>20.8578%</td>
<td>15.7303%</td>
<td>16.7103%</td>
<td>31.2213%</td>
<td>358 of 368</td>
<td>0.00</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Functioning</td>
<td>Incidence of Worsening or Serious Functional Dependence (LS)</td>
<td>11.4373%</td>
<td>22.4186%</td>
<td>14.9612%</td>
<td>16.2050%</td>
<td>15.7514%</td>
<td>193 of 368</td>
<td>1.13</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Functioning</td>
<td>Incidence of Walking as Well or Better than on Previous Assessment (LS)</td>
<td>82.1942%</td>
<td>61.7365%</td>
<td>31.7197%</td>
<td>92.3622%</td>
<td>74.2994%</td>
<td>12 of 368</td>
<td>6.78</td>
<td>2.00</td>
<td>2.00</td>
</tr>
<tr>
<td>Functioning</td>
<td>Incidence of Worsening or Serious Mobility Dependence (LS)</td>
<td>18.323%</td>
<td>37.3235%</td>
<td>33.2209%</td>
<td>21.6368%</td>
<td>25.1794%</td>
<td>140 of 368</td>
<td>1.85</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>Functioning</td>
<td>Incidence of Worsening or Serious Range of Motion Limitation (LS)</td>
<td>4.9169%</td>
<td>20.4081%</td>
<td>3.51724%</td>
<td>4.54969%</td>
<td>11.1381%</td>
<td>65 of 367</td>
<td>2.00</td>
<td>2.00</td>
<td></td>
</tr>
</tbody>
</table>

*N/A - Missing QI's - Points rescaled to 10 per domain; if missing QI(s) are in a single domain (e.g. Falls), facility total score will be rescaled to 100 points.*