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Executive Deputy Commissioner

February 27, 2024

Dear Nursing Home Administrator:

The New York State Department of Health, Office of Health Services Quality and Analytics is pleased to announce details of the methodology for the upcoming 2023 Nursing Home Quality Initiative (NHQI). The 2023 NHQI is based on the 2022 Minimum Data Set. Please see the attached document. The 2023 NHQI methodology contains a few important changes from the previous NHQI methodology, which are mentioned in the document. If you have any questions, please contact us at nhqp@health.ny.gov.

Sincerely,

Raina Josberger
Director
Center for Applied Research and Evaluation
Office of Health Services Quality and Analytics

cc:     L. Cogan
        A. Schettine
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Attachments: 2023 NHQI methodology

# New York State Department of Health

## 2023 Nursing Home Quality Initiative Methodology

### February 2024 updated

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The 2023 Nursing Home Quality Initiative (NHQI) is comprised of three components: **[I]** the Quality Component (quality measures), **[II]** the Compliance Component (compliance with reporting), and **[III]** the Efficiency Component (potentially avoidable hospitalizations). The NHQI 2023 score is worth a <mark>maximum 100 points</mark>.

<mark>**List of NHQI 2023 measures:**</mark>

**I. Quality Component: 75 points**
1.  Percent of Contract/Agency Staff Used
2.  Percent of Current Healthcare Personnel Up to Date with COVID-19 Vaccines (new measure)
3.  Percent of Current Residents Up to Date with COVID-19 Vaccines (revised measure)
4.  Percent of Employees Vaccinated for Influenza
5.  Percent of Long Stay High-Risk Residents with Pressure Ulcers
6.  Percent of Long Stay Low-Risk Residents Who Lose Control of Their Bowel or Bladder
7.  Percent of Long Stay Residents Experiencing One or More Falls with Major Injury
8.  Percent of Long Stay Residents Who Have Depressive Symptoms
9.  Percent of Long Stay Residents Who Lose Too Much Weight
10. Percent of Long Stay Residents Who Received the Pneumococcal Vaccine
11. Percent of Long Stay Residents Who Received the Seasonal Influenza Vaccine
12. Percent of Long Stay Residents Whose Need for Help with Daily Activities Has Increased
13. Percent of Long Stay Residents with a Urinary Tract Infection
14. Rate of Staffing Hours per Resident per Day
15. Total Nursing Staff Turnover

**II. Compliance Component: 15 points**
1.  NYS Regionally Adjusted Five-Star Quality Rating for Health Inspections
2.  Timely Submission of Employee Influenza Immunization Data

**III. Efficiency Component: 10 points**
1.  Potentially Avoidable Hospitalizations

## I. Quality Component *(75 points)*

Quality measures are calculated from MDS 3.0 data, the CMS' Payroll Based Journal (PBJ) Daily Nurse Staffing data, the Care Compare Provider data, the Nursing Home COVID-19 Public File, and the NYS Employee Flu Vaccination data.

➤ The allotted 75 points for quality are distributed evenly for all quality measures. The NHQI includes 15 quality measures with each measure being worth a maximum of 5 points.

➤ Quality measures are awarded points based on quintile-based or threshold-based scoring methodology. For the quintile-based measures, a facility will receive points as follows: Quintile 1: 5 points, Quintile 2: 3 points, Quintile 3: 1 point, Quintiles 4 and 5: 0 points. For the threshold-based measures, a facility will receive 5 or 0 points based on the threshold value for each measure.

➤ The quintiles and results are based on the same measurement year. Therefore, only a certain number of nursing homes are able to achieve these quintiles for each measure. The results are not rounded until after determining the quintile for measures. For measures with very narrow ranges of performance, two facilities may be placed in different quintiles and receive different points, but after rounding, the facilities may have the same rate.

➤ For quality measures that are awarded points based on their quintile distribution, nursing homes will be rewarded for achieving high performance as well as improvement from previous year's performance. Note that improvement points will not apply to quality measures that are based on threshold values. See the Quality Point Grid for Attainment and Improvement below. Assuming each quality measure is worth 5 points, the distribution of points based on two years of performance is demonstrated in the grid.

### Quality Point Grid for Attainment and Improvement

| | Year 1 Performance | | | | | |
|---|---|---|---|---|---|---|
| | Quintiles | 1 | 2 | 3 | 4 | 5 |
| **Year 2 Performance** | 1 (best) | 5 | 5 | 5 | 5 | 5 |
| | 2 | 3 | 3 | 4 | 4 | 4 |
| | 3 | 1 | 1 | 1 | 2 | 2 |
| | 4 | 0 | 0 | 0 | 0 | 1 |
| | 5 | 0 | 0 | 0 | 0 | 0 |

Year 1 = 2022 (2021 measurement year)
Year 2 = 2023 (2022 measurement year)

For example, if 2022 NHQI performance (Year 1) is in the third quintile, and 2023 NHQI performance (Year 2) is in the second quintile, the facility will receive 4 points for the measure. This is 3 points for attaining the second quintile and 1 point for improvement from the previous year's third quintile.

**Table 1a. Quality Component – Measurement Period by Data Sources**

| Data source | Measurement Period |
|---|---|
| MDS 3.0 | • October 1, 2021 - June 30, 2022 (Percent of long stay residents who received the seasonal influenza vaccine)<br>• Calendar year 2022 (all other MDS based quality measures) |
| The CMS' Payroll Based Journal Daily Nurse Staffing data | • 2022 - quarter 1, quarter 2, quarter 3, quarter 4 |
| The CMS' Care Compare data (NH_providerinfo files) | • Rate of staffing hours per resident per day (2022 - quarter 1, quarter 2, quarter 3 & quarter 4)<br>• Total nursing staff turnover (calendar year 2022) |
| Employee vaccination data submitted to the Bureau of Immunization through HERDS | • 2022 - 2023 influenza season |
| Nursing Home COVID-19 Public File | • Q42023 – weekly report |

**Table 1b. Quality Component - Measures (75 points)**

| No. | Quality Measures | Measure Steward | Data Source | Scoring Method | Notes | Eligible for Improvement in 2023 NHQI |
|---|---|---|---|---|---|---|
| 1 | Percent of contract/agency staff used | NYSDOH | The CMS' quarterly Payroll Based Journal Daily Nurse Staffing files | Threshold | Maximum points are awarded if the rate is less than 10%, and zero points if the rate is 10% or greater. | No (threshold-based measure) |
| 2 | Percent of current healthcare personnel up to date with COVID-19 Vaccines* | CMS | Nursing Home COVID-19 Public File | Quintile | | No (new measure in NHQI2023) |
| 3 | Percent of current residents up to date with COVID-19 vaccines* | CMS | Nursing Home COVID-19 Public File | Quintile | | No (revised measure in NHQI2023) |
| 4 | Percent of employees vaccinated for influenza* | NYSDOH | Employee vaccination data submitted to the Bureau of Immunization through HERDS for the 2022 - 2023 influenza season | Quintile | | Yes |
| 5 | Percent of long stay high-risk residents with pressure ulcers | CMS | MDS 3.0 | Quintile | Risk adjusted by the NYSDOH | Yes |

* a higher rate is better

**Table 1b. Quality Component - Measures** *(continued)*

| No. | Quality Measures | Measure Steward | Data Source | Scoring Method | Notes | Eligible for Improvement in 2023 NHQI |
|---|---|---|---|---|---|---|
| 6 | Percent of long stay low-risk residents who lose control of their bowel or bladder | CMS | MDS 3.0 | Quintile | | Yes |
| 7 | Percent of long stay residents experiencing one or more falls with major injury | CMS | MDS 3.0 | Threshold | Maximum points are awarded if the rate is equal to or less than 5%, and zero points if the rate is greater than 5%. | No (threshold-based measure) |
| 8 | Percent of long stay residents who have depressive symptoms | CMS | MDS 3.0 | Quintile | | ==Yes== |
| 9 | Percent of long stay residents who lose too much weight | CMS | MDS 3.0 | Quintile | Risk adjusted by the NYSDOH | ==Yes== |
| 10 | Percent of long stay residents who received the pneumococcal vaccine* | CMS | MDS 3.0 | Quintile | | Yes |
| 11 | Percent of long stay residents who received the seasonal influenza vaccine* | CMS | MDS 3.0 | Quintile | | Yes |
| 12 | Percent of long stay residents whose need for help with daily activities has increased | CMS | MDS 3.0 | Quintile | | Yes |
| 13 | Percent of long stay residents with a urinary tract infection | CMS | MDS 3.0 | Threshold | Maximum points are awarded if the rate is equal to or less than 5%, and zero points if the rate is greater than 5%. | No (threshold-based measure) |
| 14 | Rate of staffing hours per resident per day* | NYSDOH | NH_Providerinfo files are downloaded from the CMS' Care Compare data archive. | Quintile | | Yes |
| 15 | Total Nursing Staff Turnover | CMS | NH_Providerinfo files are downloaded from the CMS' Care Compare data archive. | Quintile | Regionally adjusted by NYSDOH | ==Yes== |

* a higher rate is better

## II. Compliance Component <mark>(15 points)</mark>

The compliance component consists of two measures: CMS' five-star quality rating for health inspections and timely submission of employee influenza immunization data.

➢ CMS Five-Star Quality Rating for Health Inspections (regionally adjusted)
  ○ The **health inspection survey scores** are downloaded from CMS. These scores are used to calculate cut points for each region in the state. Regions include the Metropolitan Area, Western New York, Capital District, and Central New York. Per CMS' methodology, the top 10% of nursing homes will receive five stars, the middle 70% will receive four, three, or two stars, and the bottom 20% will receive one star. Each nursing home will be awarded a Five-Star Quality Rating based on the cut points calculated from the health inspection survey scores within its region. **Ten** points are awarded for obtaining five stars or the top 10 percent (lowest 10 percent in terms of health inspection deficiency score). **Seven** points for obtaining four stars, **four** points for obtaining three stars, **two** points for obtaining two stars, and **zero** points for one star.

➢ Timely submission measures
  ○ Submission of employee influenza vaccination data to the NYSDOH Bureau of Immunization for the 2022 - 2023 influenza season by the deadline is worth five points.

**Table 2. Compliance Component - Measures**

| Number | Measure | Measure Steward | Data Source and Measurement Period | Scoring Method |
|---|---|---|---|---|
| 1 | CMS Five-Star Quality Rating for Health Inspections (regionally adjusted) | CMS | CMS health inspection survey scores (as of April 2023) | 5 stars=10 points<br>4 stars=7 points<br>3 stars=4 points<br>2 stars=2 points<br>1 star=0 points |
| 2 | Timely submission of employee influenza vaccination data | NYSDOH | Employee influenza vaccination data submitted to the Bureau of Immunization through HERDS for the 2022 - 2023 influenza season | **Five** points for submission by the deadline |

## III. Efficiency Component <mark>(10 points)</mark>

➢ To align with the other CMS quality measures, the Potentially Avoidable Hospitalizations rate will be calculated for each quarter, then averaged to create an annual average.
➢ The PAH measure is risk-adjusted.
➢ To offset the impact of St. Peter's Health Partners incomplete 2022 SPARCS (Statewide Planning and Research Cooperative System) data submissions, any nursing home that had 15% or more of their total discharges to a St. Peter's Health Partners hospital in 2019 will be exempted from this measure. The 2019 data was selected as the reference for this measure as it is the most recent year of data that was neither impacted by the pandemic, nor by St. Peter's Health Partners incomplete reporting. Base points will be adjusted for the impacted nursing homes to reflect the suppression of this measure.

**Table 3. Efficiency Component - Measure**

| Number | Measure | Measure Steward | Data Source and Measurement Period | Scoring Method |
|--------|---------|-----------------|-----------------------------------|----------------|
| 1 | Potentially Avoidable Hospitalizations | NYSDOH | MDS 3.0 and SPARCS, 2022 calendar year | Quintile 1=10 points<br>Quintile 2=8 points<br>Quintile 3=6 points<br>Quintile 4=2 points<br>Quintile 5=0 points |

*Scoring*

The facility's overall score will be calculated by summing the points for each measure in the NHQI. In the event that a measure cannot be used due to small sample size or unavailable data, the maximum attainable points will be reduced for that facility. For example, if a facility has a small sample size on two of its quality measures (each 5 points), the maximum attainable points will be 90 rather than 100. The sum of its points will be divided by 90 to calculate its total score. The example below provides a mathematical illustration of this method.

**Table 4. Calculating the overall score without and with small sample size**

| | Facility A<br>no small sample size | Facility B<br>small sample size on two quality measures |
|--|--|--|
| **Sum of points** | 80 | 80 |
| **Maximum points attainable** | 100 | 90 |
| **Score ratio (points/maximum)** | 0.80 | 0.89 |
| **Final score** | 80 | 89 |

*Ineligibility for NHQI Ranking*

Due to the severity of letter J, K, and L health inspection deficiencies, receipt of a deficiency is incorporated into the NHQI. Nursing homes that receive one or more of these deficiencies are not eligible to be ranked into overall quintiles. J, K, and L deficiencies indicate a Level 4 immediate jeopardy, which is the highest level of severity for deficiencies on a health inspection. Immediate jeopardy indicates that the deficiency resulted in noncompliance and immediate action was necessary, and the event caused or was likely to cause serious injury, harm, impairment, or death to the resident(s).

➢ Deficiency data shows a J/K/L deficiency between July 1 of the measurement year (2022) and June 30 of the reporting year (2023).
➢ Deficiencies will be assessed on October 1 of the reporting year to allow a three-month window for potential Informal Dispute Resolutions (IDR) to process.
➢ Any **new** J/K/L deficiencies between July 1 and September 30 of the reporting year (2023) will **not** be included in the current NHQI; they will be included in the next NHQI cycle.
➢ If a JKL citation is found to be expunged or lowered based upon an IDR panel review, the Department reserves the right to make the adjustments.

***Nursing Home Exclusions from NHQI***

The following types of facilities will be excluded from the NHQI and will not contribute to the pool or be eligible for payment:

- ➢ Non-Medicaid facilities
- ➢ Any facility designated by CMS as a Special Focus Facility at any time during 2022 or 2023, prior to the final calculation of the NHQI
- ➢ Specialty facilities
- ➢ Specialty units within a nursing home (i.e. AIDS, pediatric specialty, traumatic brain injury, ventilator dependent, behavioral intervention, neurodegenerative units)
- ➢ Continuing Care Retirement Communities
- ➢ Transitional Care Units


***Resources:***

- Measure specifications for the CMS Quality Measures used in the NHQI can be found in the MDS 3.0 Quality Measures User's Manual: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIQualityMeasures
- CMS' Care Compare data archive: https://data.cms.gov/provider-data/archived-data/nursing-homes
- CMS' Payroll based Journal Staffing data: https://data.cms.gov/quality-of-care/payroll-based-journal-daily-nurse-staffing
- COVID-19 Nursing Home Public file: COVID-19 Nursing Home Data - Centers for Medicare & Medicaid Services Data (cms.gov)

For more information about the NHQI methodology, please contact the Office of Quality and Patient Safety at NHQP@health.ny.gov.