Frequently Asked Questions About the National Nursing Home Quality Care Collaborative (NNHQCC) Composite Measure
July 2014

Q1: What is the NNHQCC Composite Measure?

A: The NNHQCC composite measure is a tool that can be used to help monitor NNHQCC progress. Nursing homes participating in the NNHQCC focus on processes that improve their systems and measure individual tests of change. Specifically, they look at their Plan-Do-Study-Act (PDSA) improvement cycle results, clinical outcomes measures and composite scores. The composite measure is not intended to replace or supersede existing local or federal initiatives, including the 5-star rating system, but is offered as another way to look at quality from a systems perspective.

Q2: Which quality measures are included in the composite measure?

A: The composite is comprised of 13 NQF-endorsed, publically reported, long-stay quality measures that represent larger systems within the long term care setting:
1. Percent of residents with one or more falls with major injury
2. Percent of residents with a urinary tract infection (UTI)
3. Percent of residents who self-report moderate to severe pain
4. Percent of high-risk residents with pressure ulcer
5. Percent of low-risk residents with loss of bowels or bladder
6. Percent of residents with catheter inserted or left in bladder
7. Percent of residents physically restrained
8. Percent of residents whose need for help with Activities of Daily Living (ADL) has increased
9. Percent of residents who lose too much weight
10. Percent of residents who have depressive symptoms
11. Percent of residents who received antipsychotic medications
12. Percent of residents assessed and appropriately given the seasonal influenza vaccine
13. Percent of residents assessed and appropriately given the pneumococcal vaccine

Q3: What is the data source?

A: Facility-level quality measure numerators, denominators and rates derived from the MDS 3.0 are extracted from the Quality Improvement and Evaluation System (QIES) Workbench for rolling six-month time periods on a monthly basis and used to calculate the composite score. There is a two-month delay from the last month of the time period. For example, the January through June time period would be extracted on the first business day after the first weekend in September; the February through July time period would be extracted on the first business day after the first weekend in October; the March through August time period would be extracted on the first business day after the first weekend in November, and so forth.

Q4: How is the composite score calculated?

A: The composite score is calculated based on the "opportunity model" concept. Numerators and denominators are summed across all 13 quality measures to determine the composite numerator and denominator. The composite numerator is then divided by the composite denominator and multiplied by 100 to obtain the composite score. (Please note that before the numerators and denominators can be summed, the direction of the two vaccine measures must be reversed because they are directionally opposite of the others. This can be done by subtracting the vaccine numerator from the vaccine denominator to obtain a "reversed" numerator. This "reversed" numerator is what should be counted in the composite numerator. By keeping all measure directions consistent, the composite score can be interpreted as the lower, the better.)

Q5: Why are there fluctuations in the season influenza vaccine measure rates?

A: Fluctuations in vaccine measure rates, across the six-month time periods, are expected. These are likely attributable to two factors: 1) the time period ends at the beginning or during the flu season, when many residents haven't yet had the chance to be assessed and appropriately given the vaccine; and 2) the definition of "current" flu season may vary among healthcare providers and across states.

Q6. How is the composite score evaluated?

A: The NNHQCC seeks to rapidly spread the practices of high performing nursing homes with the aim of ensuring that every nursing home resident receives the highest quality of care. Specifically, the NNHQCC strives to instill quality and performance improvement practices, eliminate healthcare acquired conditions, and dramatically improve resident satisfaction through the achievement of a rate of 6 or less.

Q7: How was the goal of "6 or less" established?

A: Prior to the launch of the NNHQCC, nearly 10 percent of the nation's nursing homes had achieved a composite score of 6 or less. Additionally, the 10 nursing homes identified for "best practices" site visits had an average composite score close to 6, and the national benchmark, using the Achievable Benchmarks of Care (ABC) method, was around 6.

Q8: Will Quality Improvement Network-Quality Improvement Organizations (QIN-QIOs) be able to calculate their state and individual nursing homes scores?

A: QIN-QIOs can calculate their state aggregate and individual nursing home composite scores using the facility-level data files provided by the National Coordinating Center (NCC) and following the method of composite score calculation as described earlier. The files provided by the NCC contain individual measure and composite measure numerators, denominators, and rates for every facility within their state. A second option is to download the individual measure data from CASPER (Certification and Survey Provider Enhanced Reports) and follow the same method for calculating the composite score. However, the two vaccination measures are not reported on CASPER and would have to be excluded 3 from the composite measure if using this data source to calculate state and individual nursing home composite scores. (See Attachment 1 "Information Regarding the Percent of Long-Stay Residents Assessed and Appropriately Given the Seasonal Influenza Vaccine Nursing Home Quality Measure")

Q9: Some community-based nursing facilities are not Medicare or Medicaid certified. Are they included in the state composite score?

A: Nursing homes without a CMS Certification Number (CCN) cannot be included when calculating a composite score.

Q10: Can nursing homes calculate their own composite scores?

A: Nursing homes can approximate their own composite scores using the publically available data on Nursing Home Compare, although the time frames reported there are different than the rolling six-month time periods used to monitor progress in the Collaborative. Nursing homes could also use CASPER data, although the two vaccination measure are not reported there and would have to be excluded from the composite measure if using this data source to calculate the composite score.

Q11: Can QIN-QIOs share individual nursing home composite scores with corporations or other stakeholders?

A: QIN-QIOs must follow provisions outlined in Part B of Title XI of the Social Security Act (the Act). Sections 1154, 1156, and 1160 provide the basis for the acquisition, protection, and disclosure of information. 42 CFR Part 480 implements the above referenced provisions of the Act.
"Confidential information" includes information that explicitly or implicitly identifies an individual patient, practitioner, institution, or reviewer. Practitioner, reviewer and provider confidential information may only be disclosed to the identified practitioner, reviewer or provider, and this would include only information about them. Disclosure to others requires the written consent of the identified practitioner, reviewer or provider. QIN-QIOs should follow their organization's QIN-QIO contractual confidentiality and disclosure policies.

**Q12: Are there significant differences in the composite scores across the nation?**

A: Composite scores vary across facilities and states.

Information Regarding the "Percent of Long-Stay Residents Assessed and Appropriately Given the Seasonal Influenza Vaccine" Nursing Home Quality Measure

Background

Seasonal fluctuations have been noted in the "percent of long-stay residents assessed and appropriately given the seasonal influenza vaccine" nursing home quality measure rates for rolling six-month time periods that are updated on a monthly basis (and, to a much lesser extent, also in the "percent of long-stay residents assessed and appropriately given the pneumococcal vaccine" nursing home quality measure rates for rolling six-month time periods which are updated on a monthly basis). The change appears to peak during the May through October time period before returning to normal at the November through April time period. The graph below illustrates the fluctuations. These fluctuations are likely attributable to two factors: 1) the time period ends at the beginning or during the flu season when many residents haven't yet had the chance to be assessed and appropriately given the vaccine; and 2) the definition of "current" flu season may vary among healthcare providers and across states.

Flu and pneumonia vaccine opportunity rates (percent of residents not yet immunized): Dec. 2011-April 2014
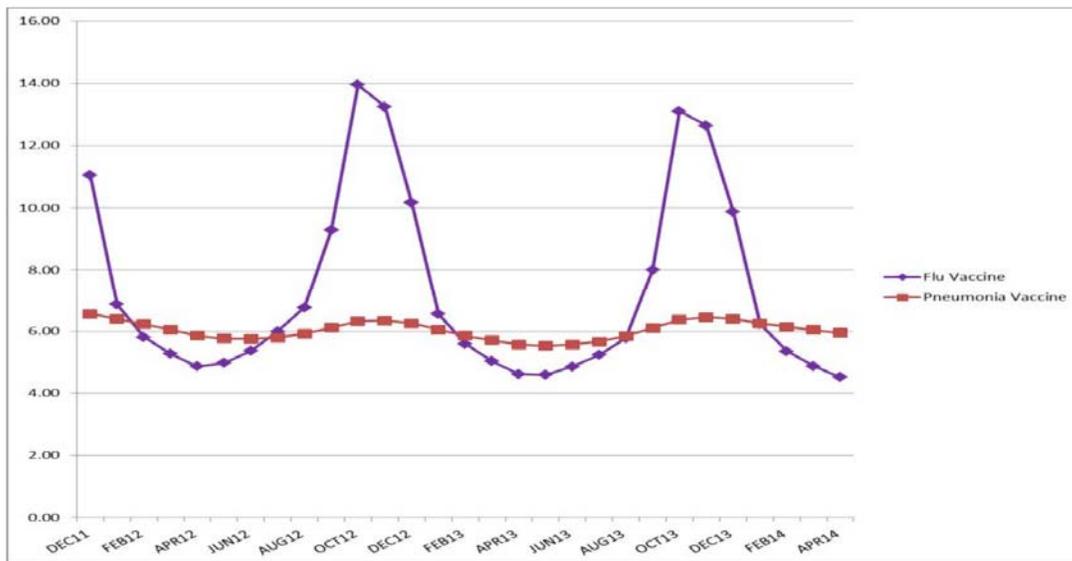
Timing of Vaccination and Assessment

Because the rolling six-month time periods are updated on a monthly basis (dropping the first month and adding the next month at each cycle), time periods that end with a month or two at the beginning or during the flu season are likely to include residents who have not yet been vaccinated for the current season that just started. Since all residents cannot be vaccinated simultaneously on Day 1 of the flu season, the six-month time periods that end on a month or two of the flu season are likely to include more residents who have not had a chance to be vaccinated or assessed. This explains the seasonal peak we consistently observe in the influenza measure rates as depicted in the graph above.

Although the Pneumococcal vaccination is a year-around activity, the subtle fluctuation we also observe for the pneumococcal vaccination during the flu season may be due to the fact that some healthcare providers may tend to intensify pneumococcal vaccination assessment during the flu season as well.

Defining Flu Season

The current MDS 3.0 Resident Assessment Instrument (RAI) Manual indicates that flu season varies annually and geographically, ending "when influenza is no longer active in your geographic area." For more information, the manual suggests that healthcare providers visit the Centers for Disease Control and Prevention (CDC) website which states that the flu season can occur as early as October and advises them to "begin offering vaccination soon after vaccine becomes available and, if possible, before October." Additionally, some states have their own definition of flu season that can begin earlier than October. The inconsistency in the timing of the flu season may explain why small changes in the measure rate begin during the six-month time periods before the biggest change in the measure rate during the May through October six-month time period.

What Does This Mean?

• We will likely continue to see fluctuations in the immunization measures that will affect the overall Composite Measure used to assess progress in the National Nursing Home Quality Care Collaborative.

• The immunization measures will remain in the Composite Measure, given the important vaccine benefits to nursing home residents.

• This fluctuation does not necessarily mean that any nursing home is out of compliance with providing timely vaccinations.

• Nursing homes should be encouraged and supported to immunize all residents appropriately in a timely manner.

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