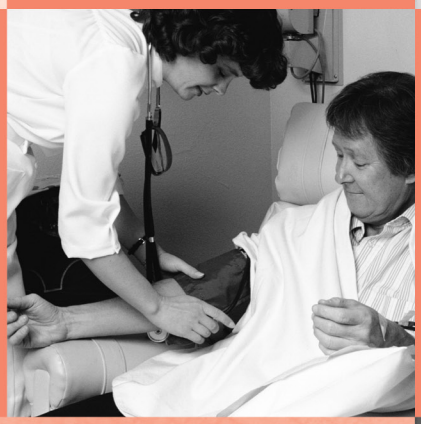

Nursing Homes

National Voluntary Consensus Standards for Nursing Homes

A CONSENSUS REPORT

National Quality Forum

The National Quality Forum (NQF) operates under a three-part mission to improve the quality of American healthcare by:

- building consensus on national priorities and goals for performance improvement and working in partnership to achieve them;
- endorsing national consensus standards for measuring and publicly reporting on performance; and
- promoting the attainment of national goals through education and outreach programs.

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Executive Summary

IN RECENT YEARS, more than 1.4 million Americans over age 65 received healthcare services from the nation's 15,500 skilled nursing facilities, accounting for approximately 6 percent of the nation's healthcare expenditures.[1,2,3] Although the segment of the population currently residing in nursing homes represents a small percentage of the nation's older adults, the aging of the baby boom generation and the predicted growth in the number of older Americans suggest a need for increased attention to how and where these individuals receive healthcare services.

The quality of care provided to these residents of long-term and post-acute care nursing homes is a subject of ongoing concern among consumers. Although quality indicators have been used for internal and external quality review and improvement, standardized measures intended for public reporting and effective methods for measuring and reporting across institutions and over time have become available only recently. Until November 2002, when the federal government launched the Nursing Home Quality Initiative, it was impossible for the public to obtain the objective information needed to compare the quality of care provided by one nursing home with that of another.

In 2004, to ensure consumers, providers, purchasers, and regulators had the information needed to evaluate the quality of care in nursing homes, the Centers for Medicare & Medicaid Services (CMS) asked the National Quality Forum (NQF) to identify a set of voluntary consensus standards for assessing the quality of care for both long-term care residents and short-stay (subacute and post-acute) residents. Based on its review of available measures, NQF endorsed a set of 16 performance measures.

In 2010, NQF began the process of updating this measure set to address additional quality issues and to comply with the implementation of a new version of the instrument used to collect this data, the Minimum Data Set 3.0 (MDS 3.0). Ultimately, 21 measures were recommended for endorsement. Today, CMS is collecting and publicly reporting information on the quality of more than 17,000 nursing homes[4] as part of the Nursing Home Quality Initiative (**www.medicare.gov/NHCompare**), which is based on the NQF-endorsed measures.

This project sought to examine nursing home measures previously endorsed by NQF and used for public reporting, as well as to endorse additional outcome, process, patient experience of care, and structural measures through NQF's CDP. A core set of performance measures for chronic and post-acute care nursing facilities will provide tools for regulators, purchasers, and consumers to evaluate the quality of care in these facilities, as well as measures facilities can use to assess and improve the quality of care they provide. The primary purpose of these voluntary consensus standards is to provide information to help consumers select nursing home care facilities.

This report describes the evaluation of 29 measures of nursing home quality that were considered for endorsement according to NQF's Consensus Development Process (CDP). Twenty-one of these measures were recommended for NQF endorsement as voluntary standards suitable for public reporting and quality improvement.

Measures Recommended for Endorsement (Measure Developer)

- NQF # 673: Physical therapy or nursing rehabilitation/restorative care for long-stay patients with new balance problem (RAND)
- NQF # 680: Percent of residents who were assessed and appropriately given the seasonal influenza vaccine during the flu season (short stay) (CMS)
- NQF # 681: Percent of residents who were assessed and appropriately given the seasonal influenza vaccine (long stay) (CMS)
- NQF # 682: Percent of residents who were assessed and appropriately given the pneumococcal vaccine (short stay) (CMS)
- NQF # 683: Percent of residents who were assessed and appropriately given the pneumococcal vaccine (long stay) (CMS)
- NQF # 684: Percent of residents with a urinary tract infection (long stay) (CMS)
- NQF # 685: Percent of low-risk residents who lose control of their bowels or bladder (long stay) (CMS)
- NQF # 686: Percent of residents who have/had a catheter inserted and left in their bladder (long stay) (CMS)
- NQF # 687: Percent of residents who were physically restrained (long stay) (CMS)
- NQF # 688: Percent of residents whose need for help with daily activities has increased (long stay) (CMS)
- NQF # 689: Percent of residents who lose too much weight (long stay) (CMS)
- NQF # 692: Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Long-Stay Resident Instrument (ARHQ)
- NQF # 693:Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Family Member Instrument (ARHQ)

Measures Recommended for Time-Limited Endorsement (Measure Developer)

- NQF # 674: Percent of residents experiencing one or more falls with major injury (long stay) (CMS)
- NQF # 675: The percentage of residents on a scheduled pain medication regimen on admission who report a decrease in pain intensity or frequency (short stay) (CMS)
- NQF # 676: Percent of residents who self-report moderate to severe pain (short stay) (CMS)
- NQF # 677: Percent of residents who self-report moderate to severe pain (long stay) (CMS)
- NQF # 678: Percent of residents with pressure ulcers that are new or worsened (short stay) (CMS)
- NQF # 679: Percent of high-risk residents with pressure ulcers (long stay) (CMS)
- NQF # 690: Percent of residents who have depressive symptoms (long stay) (CMS)
- NQF # 691: Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Discharged Resident Instrument (ARHQ)

Notes

1. Centers for Disease Control and Prevention (CDC), *FastStats: Nursing Home Care,* Atlanta, GA: CDC; 2010. Available at **www.cdc.gov/nchs/fastats/nursingh.htm**. Last accessed May 2010.
2. Administration on Aging (AOA), U.S. Department of Health and Human Services. *Profile of Older Americans,* Washington, DC: AOA; 2009. Available at **www.aoa.gov/AoARoot/Aging_Statistics/Profile/index.aspx**. Last accessed May 2010.
3. Kaiser Family Foundation (KFF), *Trends in Health Care Costs and Spending,* Menlo Park, CA: KFF; 2007. Available at **www.kff.org/insurance/upload/7692.pdf**. Last accessed May 2010.
4. Medicare.gov, *Nursing Homes Overview,* Baltimore, MD: Centers for Medicare and Medicaid Services. Available at **www.medicare.gov/nursing/overview.asp**. Last Accessed July 2010.

Background

DESPITE PAST EFFORTS to address quality in nursing homes, and some evidence of improvement in care, other evidence indicates the quality of care experienced by the 1.4 million Americans currently residing in nursing homes often remains inadequate.[1,2] Moreover, quality measurement has failed to describe clearly the state of healthcare in the nursing home setting, providing mixed results that can confuse both providers and consumers.[3]

Efforts by the federal government to address quality of care within nursing homes and long-term care facilities have evolved over time through initiatives such as the Nursing Home Quality Initiative and the mandatory collection of Minimum Data Set (MDS) information. The MDS originated as part of a 1997 decision by the Centers for Medicare & Medicaid Services (CMS) to establish guidelines for collecting nursing home data to provide information about residents' physical and mental health status, as well as to compare trends over time using more detailed resident-level statistics.[4] In 2004, CMS asked the National Quality Forum (NQF) to identify a set of voluntary consensus standards based on the MDS 2.0 for assessing the quality of care in both long-term care residents and short-stay (subacute and post-acute) residents. Now that the current project is completed, the 18 previously endorsed nursing home measures have been retired. In some instances, the old measures were replaced by new ones based in MDS version 3.0, which was implemented in October 2010.

Strategic Directions for NQF

NQF's mission includes three parts: 1) building consensus on national priorities and goals for performance improvement and working in partnership to achieve them; 2) endorsing national consensus standards for measuring and publicly reporting on performance, and 3) promoting the attainment of national goals through education and outreach programs. As greater numbers of quality measures are developed and brought to NQF for consideration of endorsement, it is incumbent on NQF to assist stakeholders to "measure what makes a difference" and address what is important to achieve the best outcomes for patients and populations. For more information see NQF's website.

Several strategic issues have been identified to guide consideration of candidate consensus standards:

DRIVE TOWARD HIGH PERFORMANCE. Over time, the bar of performance expectations should be raised to encourage the achievement of higher levels of system performance.

EMPHASIZE COMPOSITES. Composite measures provide much-needed summary information pertaining to multiple dimensions of performance and are more comprehensible to patients and consumers.

MOVE TOWARD OUTCOME MEASUREMENT. Outcome measures provide information of keen interest to consumers and purchasers, and when coupled with healthcare process measures, they provide useful and actionable information to providers. Outcome measures also focus attention on much-needed system-level improvements because achieving the best patient outcomes often requires carefully designed care processes, teamwork, and coordinated action on the part of many providers.

CONSIDER DISPARITIES IN ALL WE DO. Some of the greatest performance gaps relate to care of minority populations. Particular attention should be focused on identifying disparities-sensitive performance measures and on identifying the most relevant race/ethnicity/language/socioeconomic strata for reporting purposes.

National Priorities Partnership

NQF seeks to endorse measures that address the National Priorities and Goals of the NQF-convened National Priorities Partnership.[5] NPP represents those who receive, pay for, provide, and evaluate healthcare. The National Priorities and Goals focus on these areas:

- patient and family engagement,
- population health,
- safety,
- care coordination,
- palliative and end-of-life care,
- overuse,
- equitable access; and
- infrastructure support.

NQF's Consensus Development Process

NQF's National Voluntary Consensus Standards for Nursing Homes project[6] sought to identify and endorse measures that address the clinical, system, care coordination, and patient satisfaction aspects of nursing home care. Potential consensus standards addressed a broad range of areas, including mental health, pain, pressure ulcers, vaccination, staffing, function, incontinence, falls, and patient satisfaction. Harmonization of similar measures, particularly across settings, was a priority. Additionally, the project identified gaps in important nursing home measures.

This report does not represent the entire scope of NQF work relevant to the quality of nursing home care. In addition to the 2004 Nursing Homes project, NQF has endorsed standards and frameworks related to nursing homes and elder care through several projects, including:

- National Voluntary Consensus Standards for Ambulatory Care—Part 1 (Phase 3, Cycle 1) (2007) **http://www.qualityforum.org/Publications/2008/03/National_Voluntary_Consensus_Standards_for_Ambulatory_Care–Part_1.aspx**
- National Voluntary Consensus Standards for Ambulatory Care: Specialty Clinician Performance Measures (2007) **http://www.qualityforum.org/Publications/2007/01/National_Voluntary_Consensus_Standards_for_Ambulatory_Care__Specialty_Clinician_Performance_Measures.aspx**
- National Voluntary Consensus Standards for Emergency Care, Phase I (2009) **http://www.qualityforum.org/Publications/2009/09/National_Voluntary_Consensus_Standards_for_Emergency_Care.aspx**
- National Voluntary Consensus Standards for Hospital Care 2007: Additional Performance Measures (2007) **http://www.qualityforum.org/Publications/2008/08/National_Voluntary_Consensus_Standards_for_Hospital_Care_2007__Performance_Measures.aspx**
- National Voluntary Consensus Standards for Hospital Care: Outcomes and Efficiency (2010) **http://www.qualityforum.org/projects/hospital_outcomes-and-efficiency_II.aspx#t=2&s=&p=5%7C** (Voting draft; final report available soon)
- National Voluntary Consensus Standards for Influenza and Pneumococcal Immunizations (2008) **http://www.qualityforum.org/Publications/2008/12/National_Voluntary_Consensus_Standards_for_Influenza_and_Pneumococcal_Immunizations.aspx**
- National Voluntary Consensus Standards for Medication Management (2008) **http://www.qualityforum.org/Publications/2010/05/National_Voluntary_Consensus_Standards_for_Medication_Management.aspx**
- Comprehensive Framework for Hospital Care Performance (2003) **http://www.qualityforum.org/Publications/2003/05/A_Comprehensive_Framework_for_Hospital_Care_Performance_Evaluation.aspx**
- Palliative & Hospice Care: Framework and Practices (2006) **http://www.qualityforum.org/Publications/2006/12/A_National_Framework_and_Preferred_Practices_for_Palliative_and_Hospice_Care_Quality.aspx**

The full constellation of consensus standards from these earlier projects, along with those presented in this report, provide a growing number of NQF-endorsed® voluntary consensus standards that directly and indirectly reflect the importance of measuring and improving quality of care. Organizations that adopt these consensus standards will promote the development of safer and higher-quality care for patients throughout the nation.

Evaluating Potential Nursing Home Consensus Standards

This report presents the evaluation of an initial group of 25 measures in the areas of nursing home care; four additional measures were submitted after the Nursing Homes Steering Committee identified gaps. Candidate consensus standards were solicited though an open Call for Measures in January 2010 and were actively sought by NQF staff through literature reviews, a search of the National Quality Measures Clearinghouse, NQF Member websites, and an environmental scan. NQF staff contacted potential measure stewards to encourage them to submit measures for this project.

A total of 29 measures were ultimately identified and evaluated by the Committee for appropriateness as voluntary consensus standards for accountability and public reporting.

The measures were evaluated using NQF's standard evaluation criteria.[7] The 20-member, multi-stakeholder Committee provided final evaluations of the four main criteria: importance to measure and report; scientific acceptability of the measure properties; usability; and feasibility; as well as a recommendation for or against endorsement. Measure developers participated in the Committee discussions to respond to questions and clarify any issues or concerns. The committee rated all measures highly with regard to addressing important clinical topics for the nursing home population. When issues arose, they usually related to the scientific acceptability of the measure properties (e.g., measure specifications for numerator and denominator, and validity testing) or the measure's usability.

Recommendations for Endorsement

This report presents the evaluation of 29 measures considered under NQF's Consensus Development Process (CDP). (For more detailed specifications, see Appendix A.) Twenty-one measures are recommended for endorsement as voluntary consensus standards suitable for public reporting and quality improvement.

Candidate Consensus Standards Recommended for Endorsement

673 **Physical therapy for new balance problem in long stay patients** (RAND)

Percentage of nursing home patients 65 years or older who have a new balance problem who receive physical therapy or a new assistive device.

Falls and mobility problems are common and serious problems facing older adults in the community and in nursing homes. Accidents are the fifth leading cause of death in older adults, with falls accounting for two-thirds of these accidental deaths.[8] About one-third of those age 65 and older living in the community (outside of assisted living or nursing facilities) fall at least once a year. This increases to 1

in 2 for those age 80 and older.[9,10] Although most falls result in no serious injury, in any given year, approximately 5 percent of those age 65 and older who fall experience a fracture or require hospitalization.[11] The related problems of mobility disorders also are prevalent in older adults. Detectable gait abnormalities affect 20 percent to 40 percent of individuals aged 65 and older and 40 percent to 50 percent of those age 85 and older.[12,13]

This process of care measure was described as an effort to minimize the risk of falling for those at risk of doing so, through intervention using physical therapy or assistive devices. These interventions are just two of the multimodal interventions commonly used to treat patients at risk of falling, but they remain difficult to measure. One of the main concerns the Committee expressed was the assumption that physical therapy and the use of assistive devices are equivalent interventions; in fact, using an assistive device without therapy may be detrimental to the patient. In response, the measure developer argued there is a lack of evidence about which interventions work best; moreover, treatment effectiveness likely varies on a case-by-case basis. The Committee also expressed concern over whether excluding patients with advanced dementia is appropriate. Overall, the measure was described as feasible and well specified. The Committee voted to recommend the measure for endorsement with two conditions:

- Removal of assistive devices as a treatment modality: the measure should focus only on the provision of physical therapy for patients with a new balance problem. The Committee stated that an assistive device and physical therapy are not equivalent interventions and that receiving an assistive device without therapy may be detrimental. Therefore, assistive devices should be removed from the numerator unless the developer can present evidence that providing an assistive device without physical therapy improves patient outcomes.
- Measure specifications should be updated to reflect MDS version 3.0: the numerator and denominator specifications should be consistent with MDS 3.0.

During a follow-up Committee call, the measure developer presented a revised version of the measure that complied with these conditions. The developer explained that removing assistive devices from the numerator had little effect on the measure, given that almost all patients who received an assistive device also received physical therapy.

During further discussion, the Committee raised concerns about the measure specifications, particularly regarding the capture of data concerning residents who refuse physical therapy. In response to issue of refusals, it was suggested that being offered physical therapy is equivalent to having received it. The measure developer explained refusals are not captured in MDS 3.0, may occur either before or during treatment, and may or may not be documented in medical records. The MDS 3.0 requires that therapy must occur for at least 15 minutes on any given day to count as a "day" of therapy.

Ultimately the Committee voted to recommend the measure for endorsement. Commenters questioned whether this measure is feasible, given its reliance on administrative claims and Medicare billing, but the Committee agreed that these concerns were not great enough to prevent the measure from moving forward,

and they maintained their original decision to recommend the measure for endorsement. This measure meets the National Priority of Safety.

680 **Percent of nursing home residents who were assessed and appropriately given the seasonal influenza vaccine (short stay)** (CMS)

Percentage of short-stay nursing home/skilled nursing facility residents who are given the seasonal influenza vaccination during the influenza season.

681 **Percent of long-stay nursing home residents who were assessed and appropriately given the seasonal influenza vaccine** (CMS)

Percentage of long-stay nursing home/skilled nursing facility residents who are given the seasonal influenza vaccination during the influenza season.

Almost 60,000 deaths in 2004 were caused by influenza and pneumonia, and more than 85 percent of those were among the elderly.[14] Frail elderly are especially vulnerable and subject to complications of influenza. In the same year, approximately 123,000 death certificates identified influenza and pneumonia as a secondary cause of death. Further, the death rate from influenza and pneumonia is nearly 130 times higher among persons aged 85 and older than among persons 45 to 54 years of age.[15]

The Committee unanimously agreed these two measures are important and have strong evidence to support them. The Committee asked for and received assurance these measures are harmonized with other NQF vaccination measures. Further discussion focused on the definition of long-stay residents, the consequences of excluding missing data, and a specified time frame for vaccination.

The Committee placed requirements on endorsement for this measure, requesting that for the long-stay measure the denominator should include only residents whose stay in the facility is longer than 100 days from the date of admission; the short-stay measure denominator should include only patients whose stay is 100 days or fewer. Second, patients with missing data in the MDS 3.0 should be counted as patients who did not receive the vaccine, rather than be excluded. Third, the numerator and denominator should be clearly harmonized with NQF's previously endorsed vaccination measures. Finally, the time frame for the seasonal vaccination should be altered to harmonize with the standard NQF influenza season definition.

The steward agreed to meet these conditions for both measures, so the Committee voted to recommend these measures for endorsement. These measures meet the National Priority of Population Health.

682 **Percent of residents who were assessed and appropriately given the pneumococcal vaccine (short-stay)** (CMS)

Percentage of short-stay nursing home/skilled nursing facility residents whose PPV status is up to date during the 12-month reporting period.

683 **Percent of residents who were assessed and appropriately given the pneumococcal vaccine (long stay)** (CMS)

Percentage of long-stay residents whose PPV status is up to date during the 12-month reporting period.

According to the Centers for Disease Control and Prevention (CDC), pneumococcal disease kills more people in the United States each year than all other vaccine-preventable diseases combined.[16] Hospitalization rates for pneumonia-related stays for the elderly population have been increasing over the past 15 years, and among those 85 and older, at least 1 in 20 seniors were hospitalized each year because of pneumonia.[17]

The Committee unanimously agreed on the importance of these two measures. The discussion focused on the same issues as in the influenza vaccine measures, including clarification of the numerator and denominator to harmonize with other NQF measures. Despite the need for clarifications, Committee members stressed the measures' importance and usability.

The Committee specified four conditions for its recommendation to endorse. First, the Committee requested that for long-stay measures the denominator should include only residents whose length of stay in the facility is longer than 100 days from the date of admission; the denominators in the short-stay measures should include only patients with a length of stay of 100 days or fewer. Second, patients with missing data in the MDS 3.0 should be counted as patients who did not receive the vaccine, rather than be excluded. Third, the numerator and denominator should be harmonized with NQF's previously endorsed vaccination measures. Finally, the numerator components should be computed and reported as three separate statistics:

- up-to-date vaccine status/all short-stay residents with MDS 3.0 assessment within the 12-month period;
- offered and declined vaccine/all short-stay residents with MDS 3.0 assessment within the 12-month period; and
- ineligible due to medical contraindications/all short-stay residents with MDS 3.0 assessment within the 12-month period.

The measure developer agreed to meet these conditions.

In addition, the Steering Committee recommended that future versions of these measures include a clearer definition of "up-to-date" vaccination status, which specifies that immunization does not have to occur in the specific nursing home facility, and a clarification of the eligibility criteria for receiving vaccination.

The Committee voted to recommend these measures for endorsement. These measures meet the National Priority of Population Health.

684 **Percent of long-stay residents with a urinary tract infection (long stay)** (CMS)

Percentage of long-stay residents who have a urinary tract infection. To address seasonal variation, the proposed measure uses a six-month average for the facility.

Nursing facility residents often develop infections,[18,19,20,21,22] and among these,

urinary tract infections (UTIs) are the most common.[23,24,25] Some residents who develop urinary tract infections develop blood infections, and 10 percent of these patients die within a week.[26] Using MDS 2.0 data for April through June 2009, the national prevalence of urinary tract infections in nursing facilities was 9.7 percent, with a range from a low average of 5.0 percent in Alaska to a high average of 14.3 percent in West Virginia.[27]

The Committee commented on the importance of this measure and the degree to which it is well specified. They were optimistic that this measure will encourage nursing homes to avoid over-diagnosing UTIs. The Committee suggested that the measure be harmonized with the updated CDC definition of UTIs and that the exclusion criteria be examined further in future versions of this measure. The Committee voted to recommend the measure with the clarified definition of long-stay residents. During the comment period, several comments questioned the lack of risk adjustment for this measure. The developer stated that there are no obvious conditions related to UTIs that would be appropriate for risk adjustment, and the Committee agreed. However, this discussion prompted the Committee to re-examine whether this measure actually assesses quality. It was noted that catheterization is the leading cause of UTIs in nursing home patients. Dissenting Committee members pointed to the sparse literature supporting interventions to avoid UTIs apart from avoidance of catheterizations and to the lack of an accurate definition of a UTI, and suggested that variability in this measure across nursing homes is the result of prevalence of testing for UTIs rather than quality of care. The discussion led to a revote on the measure. Ultimately, the Committee voted to recommend this measure for endorsement on the condition that it be paired with measure NH-020-10, Percent of long-stay residents who have/had a catheter inserted and left in their bladder (presented below). This measure meets the National Priority of Safety.

685 **Percent of low-risk residents who lose control of their bowel or bladder (long stay)** (CMS)

Percentage of long-stay residents who are frequently or almost always bladder or bowel incontinent with an annual, quarterly, significant change, or significant correction MDS assessment during the selected quarter (three-month period). The measure is restricted to the low-risk, long-term population, which has long-term care needs but is not severely cognitively impaired.

686 **Percent of long-stay residents who have/had a catheter inserted and left in their bladder** (CMS)

Percentage of long-stay residents who have had an indwelling catheter in the last five days noted on an annual, quarterly, significant change, or significant correction MDS 3.0 assessment during the selected quarter (three-month period).

Measures 685 and 686 are presented together.

At least 17 million Americans have urinary incontinence (UI); it is the second leading cause of institutionalization of the elderly and occurs in more than 50 percent of nursing home

residents.[28] UI is important to treat because prevention may reduce the likelihood of infections, pressure ulcers, and other health complications from poor hygiene. Prevalence of urinary and fecal incontinence in nursing homes is reported to be between 30 percent and 65 percent.[29] For the second quarter of 2008, the current measure (Percent of low-risk residents who lose control of their bowels or bladder) based on MDS 2.0 data averages 49.4 percent nationally, with statewide averages ranging from 37.2 percent to 71.0 percent.[30]

At any given time, more than 100,000 residents in American nursing facilities have urethral catheters in place.[31] Catheters are commonly used for urinary retention, wound management, and in some circumstances, patient comfort. When not properly maintained and monitored, indwelling catheters can cause chronic pain or infections leading to a greater functional decline and decreased quality of life for the resident.[32] Using MDS 2.0 data for April through June 2008, the national prevalence of indwelling catheters in nursing facilities was 7.7 percent, with a range from an average of 5.2 percent in Rhode Island to a high of an average of 11.3 percent in North Dakota.[33] National measure results have been stable over time, ranging from 5.7 percent in 2003 to 5.8 percent in 2008.[34]

The measure developer explained changes to the MDS 3.0 as it applies to the incontinence-related measures. These changes include:

- revised response set to describe an individual's level of incontinence;
- shorter look-back period to promote improved recall;
- inclusion of data from a six-month period to account for seasonal variation; and
- more precise definition of UTI.

Discussion of these measures included the issue of possible stratification based on type of incontinence (urinary incontinence, fecal incontinence, or dual incontinence). The Committee decided this type of stratification may be useful for quality improvement or research purposes but is not necessary for public reporting.

The Committee unanimously voted to recommend these two measures for endorsement once long-stay and short-stay residents were explicitly defined. Additionally, it recommended measure 685 and 686 be paired and further research address the effects of stratification of 685 by type of incontinence. The developer agreed to define long-stay and short-stay patients explicitly.

The Committee originally was concerned about the implications of excluding patients with missing data, so the developer provided additional information detailing the minimal effect of excluding missing data. There were 5,242,022 non-admission target assessments for the calendar year of 2009. For measure 019, 390 were missing data for bowel incontinence, and 371 were missing data for bladder incontinence; 727 were missing data for one or both. For measure 020, 2,769 were missing data for catheterization. When submitting this data for Steering Committee review, the developer also explained there were minimal changes to the MDS 3.0 data items included in these measures from the measures endorsed in 2004 using MDS 2.0. The developer plans to complete further analysis once the measure is in use to observe the "pattern of missingness," or how missing data will affect the measure.

Ultimately, the Committee agreed to recommend these measures for endorsement and recommended that the measures be paired. These measures meet the National Priority of Care Coordination.

687 **Percent of residents who were physically restrained (long stay)** (CMS)

Percentage of all long-stay residents in nursing homes with annual, quarterly, significant change or significant correction MDS assessments during the selected quarter (three-month period) who were physically restrained daily during the seven days prior to the assessment.

Restraints are used to control behavior for people with disruptive, aggressive, or dangerous behavior, including those with cognitive impairment,[35,36,37] but they can pose serious risks for residents. The negative outcomes of restraints may include strangulation, loss of muscle tone, decreased bone density (with greater susceptibility for fractures), pressure sores, increased infections, decreased mobility, depression, agitation, loss of dignity, social isolation, incontinence, constipation, functional decline, abnormal changes in body chemistry and muscular function, and in some cases, resident death.[38,39,40,41,42,43,44,45] The use of physical restraints also often constitutes a disproportionate infringement of the resident's autonomy.[46]

In 2008, statewide averages for the current Chronic Care Restraint Quality Measure (QM) ranged from 0.0 percent in Puerto Rico and the Virgin Islands to 8.9 percent in California, with a 4.3 percent national average.[47]

The Committee identified this measure as highly important with strong ratings for usability and feasibility. The developer provided two clarifications during the discussion: the seven-day look-back period specified in the measure was intended to correspond to the look-back period of other similar quality measures, and the measure pertains only to individuals for whom restraints were used every day of the seven-day look-back period.

The only condition for endorsement the Committee offered for this measure was the potential inclusion of missing data. The developer provided data during follow-up to demonstrate how infrequently missing data occurs for the data items related to this measure—of all the non-admission target assessments for calendar year 2009, 629 forms were missing data for one or more of the three fields on which the measure is based. Although these data pertain to MDS 2.0 items, the completion rates for the MDS 3.0 items are predicted to be the same, given the similarity between the two versions. As discussed above, the developer intends to maintain the exclusion of missing data until further analysis of the "pattern of missingness" has been completed.

The Committee also made the following recommendations for future measure development:

- examine decreased increments in restraint use in addition to complete absence of use; and
- examine use of other forms of non-physical restraint, including motion alarms and chemical restraints.

Ultimately the Committee voted to recommend the measure for full endorsement. This measure meets the National Priority of Safety.

688 **Percent of residents whose need for help with activities of daily living has increased (long stay)** (CMS)

Percentage of all long-stay residents in a nursing home whose need for help with late-loss activities of daily living (ADLs) increased since the previous quarter (three-month period). The four late-loss ADLs are: bed mobility, transferring, eating, and toileting.

Using MDS 2.0 data for April through June 2008, the national prevalence of ADL decline in nursing facilities was 16.1 percent, with a range of 10.6 percent in Oregon to an average of 24.2 percent in North Dakota. The national measure results have been stable over time, ranging from 15.4 percent in 2002 to 14.9 percent in 2008.[48]

The Committee acknowledged there are clear limitations to this measure, such as its sensitivity to state Medicaid payment policies and the difficulty in distinguishing avoidable and unavoidable decline in function. There was some disagreement among Committee members over the scientific acceptability of this measure, the evidence supporting the measure, and how clear it is to consumers. Despite these limitations, the Committee decided the importance of the measure trumps those concerns. Members of the Committee raised concerns about the exclusion of hospice patients, based on the argument that loss of function should not be viewed as more acceptable for that population, and recommended the developer examine the inclusion of hospice patients in future versions of this measure. The Committee also mentioned concerns about outliers, i.e., nursing homes that may be more likely to have an increased number of immobile patients due to their particular population or area of expertise. During the comment period, commenters questioned the lack of risk adjustment for this outcome measure. The Committee discussed the issue and decided that the detailed exclusion criteria mitigate the need for risk adjustment in this measure. Ultimately, the Committee recommended this measure for endorsement once the developer clarified the definition of a long-stay resident (length of stay longer than 100 days). This measure meets the National Priority of Safety.

689 **Percent of residents who lose too much weight (long stay)** (CMS)

Percentage of long-stay residents who had a weight loss of 5 percent or more in the last month or 10 percent or more in the last 6 months who were not on a physician-prescribed weight-loss regimen noted on an annual, quarterly, significant change, or significant correction MDS 3.0 assessment during the selected quarter (3-month period). To address seasonal variation, the proposed measure uses a 2-quarter average for the facility.

Prevalence estimates of poor nutrition and unintentional weight loss among people in institutions vary from 2 percent to 41 percent;[49] dehydration also is common.[50] Using MDS 2.0 data for April through June 2009, the national prevalence of too much weight loss in nursing facilities was 9.2 percent, ranging from a low of an average of 7.0 percent in Alaska to a high of an average of 11.4 percent in North Carolina.[51]

The Committee's discussion of this measure highlighted its strong supporting evidence and prior use, as well as its importance. Concerns focused on the inclusion and exclusion criteria pertaining to missing data and patients near the end of life. The steward clarified that missing data for this measure requires several missed weigh-in opportunities.

While the Committee voted to recommend this measure for endorsement, one member expressed concern that weight loss is both common and normal in the last few years of life, especially among patients who may be chronically ill or cognitively impaired, and using weight loss as a quality measure can have the unintended consequence of increasing the use of feeding tubes for all residents. Additionally, the Committee recommended that future research examine several issues, including unavoidable higher rates in facilities where many patients are on palliative care programs and the exclusion of hospice patients from the measure, based on a scenario in which it is too uncomfortable for this type of patient to be disturbed in order to be weighed.

The Committee requested clarification of the definition of long-stay residents and of the numerator calculation. The measure developer agreed to meet the length of stay condition and explained the numerator calculation in writing during the call follow-up. The Committee voted to recommend this measure for endorsement. During the comment period, many commenters raised concerns about unintended negative consequences due to the inclusion of hospice patients and individuals with dementia in this measure. The Committee discussed the issue again and were unable to reach consensus, leading to a revote on this measure. It also requested additional information about the inclusion of hospice patients from the measure developer. According to the developer, its Technical Expert Panel (TEP) discussed this issue in detail and decided against excluding the hospice population and/or population having a prognosis of less than six months to live because it is likely subject to substantial measurement error given it is very difficult to predict when someone will die. In addition, the TEP felt that substantial weight loss is not necessarily associated with the last six months of life or with residents receiving hospice care. The developer also stated that they plan to analyze the MDS 3.0 data regarding refinements related to this quality measure and, in particular, for residents receiving hospice care and those with a prognosis of less than six months to live. The proposed weight loss quality measure is the percentage of long-stay residents who had a weight loss of 5 percent or more in the last month or 10 percent or more in the last 6 months, which is considered unhealthy and significant.

Ultimately, the Committee revoted to endorse this measure. This measure meets the National Priority of Population Health.

692 **Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Long-Stay Resident Instrument** (ARHQ)

The CAHPS Nursing Home Survey: Long-Stay Resident Instrument is an in-person survey designed to gather information on the experience of long-stay residents currently in nursing homes. The survey instrument provides nursing home

level scores on five topics valued by residents: (1) environment, (2) care, (3) communication and respect, (4) autonomy, and (5) activities. In addition, the survey provides nursing home level scores on three global items.

The Committee unanimously agreed that this measure was important and more patient centered than the other measures submitted for this project. However, some members did express skepticism about whether the instrument may be used on its own as a tool for improvement. While the measure generally received high ratings for scientific acceptability, several Committee members expressed significant concern about the exclusion of non–English-speaking individuals and the potential for cultural bias. The measure steward agreed with the benefit of translating the survey into other languages; however, the resources are not available to do so in most facilities. In post-meeting follow-up, the measure developer informed the Committee it had received some funding for translation into Spanish. (This was completed in May 2011.) Other issues the Committee raised included concern that a rolling sample may be required to meet the minimum number of resident responses (85 to 90 per facility).

The Committee noted the measure failed to harmonize its definition of a long-stay resident with the 100-day definition used in many other quality measures aligned with Medicare coverage of skilled nursing facility care. The developer pointed out the current definition aims to include individuals who are expected to stay for 100 days based on the absence of a discharge plan after the 30 days in the facility, but ultimately agreed to harmonize the measure to define "long stay" as more than 100 days.

The Committee expressed several concerns regarding the cost to implement this survey and the possibility that it would be a significant burden and potentially require special personnel to complete. In 11 long-term care resident surveys, which took place in 3 states, more than 35,000 residents were interviewed face to face. The cost per interview ranged from $32 to $51, depending on project specifics (including number of residents interviewed, number of nursing homes included, etc). During the discussion on cost, the developer explained one cost-saving solution, put in place by the state of Ohio: alternating between the in-person interview and a survey mailed to families each year. Commenters also raised the issue of the cost of implementation, but the Committee decided it had discussed this issue adequately and it should not prevent endorsement of the CAHPS measures. Endorsement of the measures does not mean that facilities are required to implement them at this time, and the Committee felt that the cost issue was something that CMS should address should they decide to require these measures. In response to a question regarding training of nursing home staff, the steward explained that nursing home staff was not expected to administer the survey; rather, external third parties should administer it. Although the nursing home would not need to train staff, it would need to contract with external parties to administer the survey.

Overall, the Committee determined the benefits of the survey (particularly the patient-centered focus) outweighed concerns over feasibility and language barriers and voted to recommend the measure for endorsement. This measure meets the National Priority of patient and family engagement.

693 **Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Family Member Instrument** (ARHQ)

The CAHPS Nursing Home Survey: Family Member Instrument is a mail survey instrument to gather information on the experiences of family members of long-stay residents currently in nursing homes. The Family Member Instrument asks respondents to report on their own experiences (not the resident's) with the nursing home and their perceptions of quality of care provided to a family member living in a nursing home. The survey instrument provides nursing home level scores on four topics valued by patients and families: (1) meeting basic needs, such as help with eating, drinking, and toileting; (2) nurses'/aides' kindness/respect toward resident; (3) nursing home provides information/encourages respondent involvement; (4) nursing home staffing, care of belongings, and cleanliness. In addition, the survey provides nursing home scores on three global items, including an overall rating of care.

The Committee agreed this measure is important. Although this instrument is not intended to serve as a proxy for long-stay nursing home resident response, it may be an especially important tool for individuals who do not qualify to answer the long-stay instrument. For these individuals, the family member instrument may be the only available option for providing feedback on the patient care experience. Several Committee members agreed the survey question about the length of wait time (for assistance by a nurse or aide with eating, drinking, or toileting) may not be the most relevant, given the extent to which it is subjective. However, the purpose of the CAHPS surveys is to solicit family perspectives, and the facility scores include all responses, not just those from responders who may have unrealistic expectations regarding time. The developer emphasized the survey aims to address observable care experiences rather than assuming the family member has the same understanding of care experience as the resident. Another Committee member commented that the sampling methodology described in the measure submission will allow for outliers (i.e., respondents who are particularly displeased about every aspect of care or too easily satisfied) without affecting the survey results. A Committee member suggested that, as with the other CAHPS measures, the mailed survey should be translated into other languages to accommodate non-English speakers. (A Spanish translation was completed in May 2011.)

The Committee voted to recommend this measure for endorsement. This measure meets the National Priority of Patient and Family Engagement.

Candidate Consensus Standards Recommended for Time-Limited Endorsement

674 **Percent of residents experiencing one or more falls with major injury (long stay)** (CMS)

Percentage of residents who experienced one or more falls with major injury (e.g., bone fractures, joint dislocations, closed head injuries with altered consciousness, and subdural hematoma) in the last year (12-month period).

Each year, an average nursing home with 100 beds reports 100 to 200 falls.[52] Approximately 1,800 older adults living in nursing homes die each year from fall-related injuries. Those who experience non-fatal falls can suffer injuries, have difficulty getting around, and have a reduced quality of life.[53] About 10 percent to 20 percent of nursing home falls cause serious injuries; 2 percent to 6 percent cause fractures.[54] Falls result in disability, functional decline, and reduced quality of life. Fear of falling can cause further loss of function, depression, feelings of helplessness, and social isolation.[55]

The Committee's review focused on the definition of a "fall with a major injury" and appropriate exclusion criteria. Given the definition for a fall includes intercepted falls (a fall when the resident would have fallen if he or she had not caught him- or herself or had not been intercepted by another person), the Committee suggested it might be inappropriate to exclude comatose patients. They also suggested it might be helpful to examine how falls with injuries relate to total number of falls and the use of restraints to prevent falls.

The Committee members voted in favor of recommending this measure for time-limited endorsement, pending clarification and additional information on the following issues:

- whether scope of the measure should be broadened to include all falls, as opposed to only falls with major injury—the Committee requested that the developer consider broadening the measure to include all falls; and
- exclusion of comatose patients.
- The Committee's recommendation was based on the variability in how falls are classified and the use of similar interventions to treat different types of falls. The developer plans to examine rates for both types of fall injuries during measure testing. The information the developer provided convinced the Committee to recommend the measure as-is for time-limited endorsement despite the original request to broaden the scope to all falls.

The developer said the Technical Expert Panel (TEP) that advised the measure development presented conflicting evidence regarding the exclusion of comatose patients. Ultimately, the developer agreed to include comatose patients, based on the rationale that any fall is a negative outcome that should be prevented and for which nursing homes should be held accountable. The Committee voted to recommend this measure for time-limited endorsement.

Commenters were concerned about the lack of risk adjustment for this outcome measure. The Committee requested additional information from the developer and was informed that the decision not to risk adjust this measure was based on the careful review of literature and input from the CMS TEP. The CMS TEP was concerned that risk adjustment may mask inadequate care or adjust for factors that nursing home facilities should be monitoring and that any risk adjustment would lead to a "very slippery slope" of deciding what factors to adjust for. In addition, the CMS TEP thought that nursing homes, by their nature, are assuming responsibility for high-risk patients and therefore need to be able to handle these risks. Although the Committee discussed a number of ways in which this measure could

include risk adjustment for factors like age or gender, the group's final decision mirrored the CMS TEP's concerns. They concluded that risk adjustment could inappropriately allow nursing homes with sicker patients to undercount the number of falls. Ultimately, the Committee maintained their original recommendation for time-limited endorsement of this measure without risk adjustment. This measure meets the National Priority of Safety.

675 **The percentage of residents on a scheduled pain medication regimen on admission who report a decrease in pain intensity or frequency (short stay)** (CMS)

*Please note title change. This measure was originally titled *Effective pain management (short stay).*

Percentage of short-stay residents who are on a scheduled pain medication regimen at admission (PPS 5-day assessment) AND who report lower levels of pain on their discharge MDS 3.0 assessment or their 14-day PPS MDS assessment (whichever comes first).

Research indicates that at least 40 percent to 85 percent of nursing facility residents have persistent pain. The percentage may be even higher; research suggests that pain is often not fully documented.[56,57,58,59,60,61,62]

Discussion of this particular measure focused on weighing the consequences of measure specifications that lend themselves to potential underreporting against the potential consequences of not recommending endorsement of a measure that addresses an important topic area. The Committee was concerned that the numerator definition and exclusions could allow for manipulation to the advantage of poorly performing nursing homes, but several members of the Committee were concerned that pain assessment will receive less attention if a pain measure of this sort is not endorsed. The Committee also was concerned specifically about the exclusion of individuals not on a scheduled analgesic and those with missing data.

Some Committee members expressed strong opposition to the measure. In summary, these concerns relate to:

- how the measure is specified, including the lack of focus on pain management methods aside from medication;
- the subjectivity of reporting pain;
- the need to consider the overuse of medication to treat pain;
- whether this measure lends itself to actionable processes for improving health outcomes;
- concerns over whether nursing homes face pressure to underreport on pain measures; and
- the lack of a crosswalk between levels of patient satisfaction with their pain levels.

The Committee voted to recommend the measures for time-limited endorsement pending the following conditions:

- evaluate the patient's cognitive status when reporting on pain;
- examine what missing data indicate in light of concerns that data may not be reported to improve the reported quality of care;
- address concerns regarding the frequency of pain, e.g., does decreased frequency of pain, but increased intensity of pain, equal

effective care? Currently either decreased frequency OR decreased intensity count as effective pain management, but having horrible pain less often would count as effective pain management; and

- address the fact that the range of 0 to 10 is not linear. The measure does not account for potential changes in pain score (e.g., 1:1 or 3:5) and may result in unintended consequence when interpreting the measure results. The Committee encouraged addressing these concerns during reliability testing. Committee members noted some residents would rather have pain at 4/5 than take opiates, but the measure does not allow for such a situation. The Committee recommended that the measure account for patient preference.

In addition, the developer and measure steward received recommendations to examine the following issues during testing:

- examine crosswalk between pain and patient satisfaction;
- educate staff on how to treat pain, not just how to measure it;
- address potential complicating factors (i.e., patient undergoing therapy may experience more immediate pain but is receiving the proper treatment);
- consider overuse of medication; and
- account for patient preference in favor of some level of pain over use of opioids.

The Committee suggested, but did not require, that the developer change the title of the measure to be more specific about what is being measured. The developer agreed to a title change and explained the new title aims to limit the broad scope of pain management suggested by the measure's original title.

While the developer agreed it is important to capture residents' cognitive status when measuring pain, the MDS does not currently allow for such combined assessment. The MDS 3.0 includes questions on cognitive status and pain, respectively, but not concurrently. The change to MDS 3.0 for this topic means a switch to a resident interview rather than a staff assessment (which was used in MDS 2.0) to measure pain. The MDS 3.0 includes an observational pain assessment for individuals who are unable to complete the self-report pain assessment interview, but these pain measures exclude residents who are unable to answer the relevant questions. The developer explained that validity testing showed that 89 percent of a nationally representative sample of nursing home residents were able to complete the pain interview, and evidence suggests that residents experiencing varying levels of cognitive impairment are still able to complete the self-report pain assessment. The developer expressed interest in expanding its measure testing efforts in the future to include consideration of severely cognitively impaired individuals who are unable to self-report pain.

The developer also plans to examine the change in levels of pain, the lack of change, and the direction of change, and patterns for both frequency and intensity as part of ongoing measure testing. It clarified that individuals who are on a pain management regimen but are not experiencing any pain upon admission are not included in the measure. The measure developer mentioned that the MDS does not collect information regarding patient preference.

The missing data issue was addressed in a similar fashion as to earlier measures and will be examined more carefully during testing.

The Committee voted to recommend this measure for time-limited endorsement. This measure meets the National Priority of Care Coordination.

676 **Percent of residents who self-report moderate to severe pain (short stay)** (CMS)

Percentage of short-stay residents with a 14-day PPS assessment during a selected quarter (3 months) who have reported almost constant or frequent pain and at least 1 episode of moderate-to-severe pain, or any severe or horrible pain, in the 5 days prior to the assessment.

677 **Percent of residents who self-report moderate to severe pain (long stay)** (CMS)

Percentage of long-stay residents in a nursing home who reported almost constant or frequent pain and at least one episode of moderate-to-severe pain or any severe or horrible pain in the past five days prior to the assessment.

Research indicates that at least 40 percent to 85 percent of nursing facility residents have persistent pain. The percentage may be even higher; research suggests pain often is not fully documented.[63,64,65,66,67,68,69]

These two measures were discussed concurrently with measure 009, and many of the same issues apply. The Committee voted to recommend the measure for time-limited endorsement with the following conditions:

- evaluate the patient's cognitive status when reporting pain;
- further examine missing data to ensure there is not an underreporting of pain in order to improve the facility's rating;
- address concerns regarding the frequency of pain, e.g., does decreased frequency, but increased intensity, equal effective care;
- address concerns around unintended consequences that may occur when interpreting the measure results during reliability testing. The range of 0 to 10 is not linear and therefore does not account for potential changes in pain score. It was noted that some residents would rather have pain at level 4 or 5 than take opiates; and
- account for patient preference in pain management.

During follow-up, the developer explained it plans to examine the results of this measure compared to those produced by independent measures solely focused on cognitive status (i.e., Brief Interview of Mental Status [BIMS] or resident ability to complete the MDS self-report pain assessment) during testing.

Multiple commenters were concerned about nursing home residents who are unable to self-report pain. In response, the developer proposed changing the title of the measure to include "who self-report," and the Committee agreed that this adequately addressed the issue. The Committee voted to recommend these measures for time-limited endorsement. The measures meet the National Priority of Care Coordination.

678 **Percent of residents with pressure ulcers that are new or worsened (short stay)** (CMS)

Percentage of all short-stay residents in a nursing home with a discharge MDS assessment during the selected quarter (3-month period) who were identified as having 1 or more Stage 2-4 pressure ulcer(s) that were new or had not improved since their OBRA admission or 5-day PPS assessment.

Pressure ulcers are serious medical conditions and one of the most important measures of the quality of clinical care in nursing facilities. Pressure ulcers typically result from prolonged periods of uninterrupted pressure on the skin, soft tissue, muscle, and bone.[70,71,72] Vulnerable patients include the elderly; stroke and diabetic patients; those with dementia, circulatory diseases, dehydration, and malnutrition; and people who use wheelchairs or are bedridden—that is, any patient with impaired mobility or sensation.[73,74,75] Pressure ulcers interfere with the activities of daily living, predispose patients to osteomyelitis and septicemia, and are strongly associated with longer hospital stays and mortality.[76]

Pressure ulcers are high-volume and high-cost adverse events across the spectrum of healthcare settings from acute hospitals to home health.[77,78,79] The prevalence of pressure ulcers in healthcare facilities is increasing, with some 2.5 million patients being treated annually for pressure ulcers in acute care facilities.[80,81] In 2006, there were 503,300 acute hospital stays during which pressure ulcers were noted—a 78.9 percent increase from 1993, when there were approximately 281,300 hospital stays related to pressure ulcers.[82,83] As reported in the 2004 National Nursing Home Survey results, about 159,000 current U.S. nursing home residents (11 percent) had pressure ulcers. Stage 2 ulcers were the most common, accounting for about 50 percent of all pressure ulcers. Stages 1, 3, and 4 made up the other approximately 50 percent of all ulcers.[84] Stage 1 pressure ulcers are not included in the proposed quality measure because researchers have suggested including them adds little value.[85,86]

The Committee agreed this is a well-specified and important measure that addresses an area of care where there is room for improvement. Despite the overall strength of the measure, the Committee discussed a few weaknesses:

- lack of harmonization with pressure ulcer measures for other care settings;
- seasonal variation is not considered in the measure specifications; and
- lack of attention to other factors that may influence the development of pressure ulcers, including the patient's level of skin moisture or nutrition, as well as the use of lifting devices and levels of nurse staffing.

The developer will consider these issues during measure testing.

One Committee member raised the concern that the MDS coding requirement, as used by CMS, conflicts with recommendations of relevant expert groups. The CMS definition of a deep tissue injury (DTI) wound differs from the definition used by the National Pressure Ulcer Advisory Panel. The Committee voted to recommend this measure for time-limited endorsement.

There were multiple comments about this measure, primarily focused on two issues: that the measure does not allow a realistic amount of time for pressure ulcers to heal, and that combining new pressure ulcers and pressure ulcers that fail to improve is confusing and does not reflect the true quality of care in a facility. After extensive discussion, the Committee agreed to a title change that reflects MDS 3.0 item M0800, "Worsening in pressure ulcer status since prior assessment (OBRA, PPS, or Discharge)," and that also reflects the lack of evidence about the degree to which pressure ulcers can improve during a short time. The new title is 678: Percent of residents with pressure ulcers that are new or worsened (short stay). This measure meets the National Priority of Safety.

679 **Percent of high-risk residents with pressure ulcers (long stay)** (CMS)

This outcome standard measures the percentage of long-stay nursing home residents who were identified as high risk (comatose, impaired in bed mobility or transfer, or suffering from malnutrition, who have 1 or more Stage 2-4 pressure ulcers). High-risk populations are those who are comatose, impaired in bed mobility or transfer, or suffering from malnutrition.

Similar to the discussion of measure 678, the Steering Committee review of this measure cited the strong evidence for identifying nursing home residents with pressure ulcers. It was specified to high-risk patients only based on findings about the weak usability of this type of measure for low-risk patients. The Committee discussed the effects of risk adjusting this measure but decided there are too many factors in the development of pressure ulcers to be able to risk adjust properly and that risk adjustment may have the unintended consequence of preventing staff action where it may help reduce the risk of pressure ulcers. Recommendations for future development of this measure included:

- identifying more specifically high-risk patients and the role of malnutrition in establishing risk; and
- excluding residents who are admitted with stage 4 pressure ulcers, which may not heal within 100 days.

Comments raised concerns about the lack of risk adjustment for this outcome measure, but the developer explained the measure needed further testing with the new MDS 3.0 definition of pressure ulcers before risk adjustment can be determined. This measure is untested and recommended for time-limited endorsement. Within 12 months, the developer must submit reliability and validity testing results including analyses to determine if risk adjustment is or is not necessary (e.g., identifying factors associated with weight loss, whether they are modifiable, and whether they vary across facilities). The Committee voted to recommend this measure for time-limited endorsement. This measure meets the National Priority of Safety.

690 **Percent of residents who have depressive symptoms (long stay)** (CMS)

This measures the percentage of long-stay residents in a nursing home during the current quarter who have had symptoms of depression during the two-week period preceding the MDS 3.0 assessment date.

Research conducted before the national implementation of the MDS demonstrated that the prevalence of major depression among cognitively intact or moderately impaired nursing facility residents was 20 percent to 25 percent. In addition, another 30 percent of residents had less severe, but nevertheless clinically significant, depression.[87] However, only about 10 percent of residents with recognized depression were treated.[88] More recent studies reveal that despite an emphasis on depression in the MDS and associated quality indicators, as well as an almost 3-fold increase in the number of residents prescribed antidepressants,[89] 34 percent of residents may have clinically significant depressive symptoms.[90]

The Committee discussed the benefit of using components of the PHQ-9 (Patient Health Questionnaire, depression module), as suggested by the measure to standardize assessment of depressive symptoms. The measure specifications required a number of points of clarification from the measure developer related to the numerator, the denominator, and exclusions. The developer was also asked to clarify the inclusion of individuals being re-admitted into the nursing home following hospital discharge.

The Committee voted to recommend this measure for time-limited endorsement following clarification of the definition of long-stay residents and of the numerator calculation. The measure developer clarified the definition of long-stay residents. The developer cited a study finding that 88 percent of patients with major depression scored a 10 or higher from either the Total Severity Score (MDS 3.0 item D0300), which is calculated based on the resident response to the PHQ-9, or the Staff Assessment Measure (MDS 3.0 item D0500).[91] Thus, the measure numerator was explained in terms of residents who scored a 10 or higher on either the Total Severity Score assessment or the Staff Assessment Measure.

In addition to the conditions previously laid out by the Committee, follow-up discussion of this measure clarified the measure developer's intensions to evaluate further the effect of missing data on this measure.

The Committee voted to recommend this measure for time-limited endorsement. During commenting, the developer suggested the title change in response to comments, and the Committee agreed. The new title is *Percent of residents who have depressive symptoms (long stay).* This measure meets the National Priority of Population Health.

691 **Consumer Assessment of Health Providers and Systems (CAHPS®) Nursing Home Survey: Discharged Resident Instrument** (ARHQ)

The CAHPS Nursing Home Survey: Discharged Resident Instrument is a mail survey instrument to gather information on the experience of short-stay residents recently discharged from nursing homes. The survey instrument provides nursing home-level scores on four global items. Additionally, the survey provides nursing home-level scores on summary measures valued by consumers; these summary measures or composites are currently being analyzed. The composites may include those valued by long-stay residents: (1) environment; (2) care; (3) communication and respect; (4) autonomy; and (5) activities.

This measure is still being tested, and the instrument will be finalized when testing is complete. During discussion, a Committee member noted the survey does not address transition and discharge. The Committee discussed the potential for facilities to incorporate the CTM-3 in conjunction with the CAHPS measure to address care transitions properly.

Committee members disagreed about the degree to which the instrument addressed the topic of culture change. Similar to the inclusion of the CTM-3, the developer reminded the group that additional questions addressing culture change could serve as a supplement to the instrument. It also was suggested that the topic could be addressed with a separate instrument or in a future version of the measure.

The Committee acknowledged the survey showed a good response rate from previous testing. Committee members raised concerns about the content validity of the autonomy questions included in the instrument and whether they appropriately measure resident autonomy (e.g., survey does not address waking time or how and when bathing should occur). The steward explained that continued analysis of the autonomy composite aims to address this by determining whether it is appropriate for inclusion in the instrument for discharged residents. The Committee raised concerns about the lag time between when the resident received nursing home services and when he or she would be asked to recall his or her experience with those services. It discussed whether a phone interview could address respondents' potential problems with recall, as well as allowing respondents to provide more detailed answers to survey items. The developer stated it does not currently have the resources to test the measure with different modes of administration and cited evidence to suggest that short-stay residents are less likely to be cognitively impaired than long-stay residents. The Committee described the measure as well harmonized, given that CAHPS measures are being implemented in other care settings. One of the Committee members briefly cited cost as a barrier to feasibility, but ultimately that factor did not override the importance of the measure.

The Committee voted to recommend this measure for time-limited endorsement. This measure meets the National Priority of Patient and Family Engagement.

228 3-Item Care Transition Measure (University of Colorado Health Sciences Center)

One-dimensional, self-reported survey that measures the quality of preparation for care transitions.

The NQF Board of Directors re-endorsed the Care Transition Measure at the facility level in May 2010. The Nursing Homes Steering Committee was asked to consider whether the measure, as specified for nursing homes, should be included in the set of recommended measures. Several Committee members emphasized the importance of measuring transitions. One Committee member also commented that the measure is user friendly, simple, and useful. The developer was asked to clarify the method of administering the tool; the tool can be administered via mail or telephone, based on previous testing demonstrating that either option is acceptable to the target population. The survey can be administered by an external third party or by the provider of care (e.g.,

the nursing home) as long as the survey is not administered by a health professional who has cared for the patient, as this effectively inflates the CTM-3 score due to the social desirability influence.

The Committee expressed interest in having the CTM-3 added to the Nursing Homes CAHPS discharge measure. The developer explained no formal efforts have been made to add the CTM-3 to a Nursing Home CAHPS instrument at this time. However, including the CTM-3 as part of Hospital CAHPS has been discussed previously. The CAHPS developer stated the Nursing Home CAHPS measures allow for the addition of questions to supplement the original instrument.

NQF already has endorsed this measure at the facility level. The Committee recommended the redefined CTM-3 be added to the approved Nursing Homes measure set. This measure meets the National Priority of Care Coordination.

Candidate Consensus Standards Not Recommended for Endorsement

NH-001-10: **Assessment of dementia on admission to long-term care facility** (AMDA)

Percentage of patients aged 75 years and older with current signs and symptoms of dementia assessed in the physical/functional and psychosocial domains with a validated instrument and documented in the medical record.

While the Committee agreed the measure undeniably addresses an important topic area, it did not think the measure as specified was comprehensive enough to discuss in detail. The Committee noted the definition of "signs and symptoms of dementia" was unclear, and the measure did not adequately specify the instrument intended for use to assess dementia. Overall, the measure submission required much more detailed specifications to be considered for recommendation. The Committee suggested that the measure be revised and resubmitted at a later date.

NH-002-10: **Behavioral intervention for worsening urinary incontinence** (RAND)

Percentage of nursing home patients 65 years or older with worsening urinary incontinence, who are able to self-toilet, and who have a behavioral intervention.

The Committee voted not to recommend this measure due to its narrow focus; weaknesses in the data source (MDS 2.0); limits on the population (including only patients who can self-toilet and excluding patients who are immobile but not cognitively impaired); potential unintended consequences (misrepresentation of the treatment's effectiveness and impact); and a lack of demonstrated usefulness and ease of interpretation by consumers.

NH-004-10: **Patient fall rate** (ANA)

All documented falls, with or without injury, experienced by patients on an eligible unit in a calendar quarter.

The Committee raised a number of concerns regarding this measure, including its inconsistent

focus, utilization of tools that are incompatible with long-term care settings, and concerns about the feasibility of accurate data capture. In addition, the measure specifications were not appropriately tailored to long-term care settings.

NH-005-10: **Falls with Injury** (ANA)

All documented patient falls with an injury level of minor (2) or greater.

Similar to measure NH-004-10, the Committee noted the numerator and exclusion specifications were not appropriately tailored to long-term care settings. Based on the intended definition of falls with injury, and the data collection process, the Committee commented that variation in how incident reports define levels of injury poses a threat to the feasibility of collecting accurate data. Harmonization with acute care settings, as well as different types of long-term care facilities (i.e., hospice, skilled nursing facility, etc.), also require more detailed consideration.

NH-006-10: **Skill mix** (registered nurses [RN], licensed vocational/practical nurse [LPN/LVN], unlicensed assistive personnel [UAP], and contract) (ANA)

NSC-12.1—Percentage of productive nursing hours worked by RN staff (employee and contract) with direct patient care responsibilities by type of unit

NSC-12.2—Percentage of productive nursing hours worked by LPN/LVN staff (employee and contract) with direct patient care responsibilities by type of unit

NSC-12.3—Percentage of productive nursing hours worked by UAP staff (employee and contract) with direct patient care responsibilities by type of unit

NSC-12.4—Percentage of productive nursing hours worked by contract staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities by type of unit

NH-007-10: **Nursing care hours per patient day** (ANA)

NSC-13.1—The number of productive hours worked by RNs with direct patient care responsibilities per patient day

NSC-13.2—The number of productive hours worked by nursing staff (RN, LPN/LVN, and UAP) with direct patient care responsibilities per patient day

The Committee acknowledged the importance of staffing measures and the long history involved in examining the link between staffing and quality. Despite the importance of these measures, the Committee had several concerns with these two measures, including:

- the need for harmonization with the new healthcare reform law provision that mandates the collection of nurse staffing data;
- the difficulty of obtaining reliable and consistent payroll data to support staffing measures;
- the fact that measures are specified for hospitals and not the nursing home setting;
- ambiguity of the definition of terms included in the numerator and denominator, such as "productive care"; and
- whether complete testing within the next 12 months is reasonable.

Candidate Consensus Standards Withdrawn from Consideration

NH-023-10: **Percent of residents whose ability to move in and around their room and adjacent corridors got worse (long stay)** (CMS)

Percentage of all long-stay residents in a nursing home whose mobility has declined.

The Committee found several problems with this measure:

- the measure title does not reflect the numerator statement;
- only one level of decline is specified;
- there are poor results for validity and reliability testing;
- it employs unacceptable risk-adjustment methodology;
- it could result in several unintended consequences; and
- it compares patients who can ambulate with assistance to patients using wheelchairs as if they are equivalent levels of function.

The Committee weighed the importance of having a measure like this available for public reporting versus the consequences of using a measure that is not scientifically sound. The Committee unanimously voted to defer voting on this measure to give the developer a chance to re-assess. Ultimately, the developer chose to withdraw this measure from consideration.

Additional Recommendations

The Committee recommended that the following areas require further investigation and measure development.

End-of-life care issues:

- advance care directives;
- timely and appropriate referral to hospice; and
- living wills.

Hospitalization issues:

- rehospitalization rates; and
- unnecessary hospital admissions.

Incontinence:

- incontinence; and
- toileting for all incontinent residents, not just mobile residents.

Legal/financial issues:

- legal and financial aspects of care, including families' needs; and
- utilization of care and resources.

Medication issues:

- antipsychotic medications;
- a harmonized set of measures about MRSA for all types of facilities;
- a look at the emphasis in using pharmacologic treatments for so many conditions;
- management of polypharmacy;
- multidrug-resistant infections/infection control/more judicious use of antibiotics; and
- psychotropic medications.

Mental health issues:

- delirium;
- end-stage dementia managed as a life-limiting illness with palliative care/hospice;
- research into the potential added value of "Specialized Dementia Units." The research in this area has been inconclusive, and standards have not been established in order to evaluate the care; and
- a better understanding of the numbers of individuals being transferred out of facilities because the staff is not able to manage non-cognitive symptoms associated with dementia, specifically, agitation and aggressive behaviors.

Patient satisfaction issues:

- person- or surrogate-directed/-centered care; and
- surrogate reporting.

Physical health issues:

- loss of ambulatory ability (i.e., losing ability to walk unassisted);
- sexual health;
- short-stay residents with new or worsened pressure ulcers;
- identification of factors related to infection rates (MRSA, etc);
- unexpected or avoidable weight loss;
- vaccination for the herpes zoster vaccine for those older than 65; and
- harmonized set of measures about MRSA and other antibiotic-resistant infectious diseases, for all types of facilities.

Quality-of-life issues:

- decrease/elimination of alarms;
- flexibility in meal times, bathing, etc.;
- identification of fall risk factors;
- modified diets;
- non-MDS measures;
- quality-of-life issues/choice and lifestyle preferences; and
- return to the community.

Staffing issues

- communication within care team;
- continuity-of-care issues across care settings;
- how to measure staffing ratios appropriately;
- relationships with aides;
- stability in the director of nursing position;
- staff turnover;
- surgical interaction with care (nutrition, etc.);
- turnover and continuity of care issues with staff; and
- use of safe lifting practices.

Additional issues

Concentrating on functional outcome measures rather than prevalence measures would allow facilities to improve their evaluation of quality and assist in planning quality improvement initiatives.

Notes

1. Centers for Disease Control and Prevention (CDC). Atlanta, GA: CDC. Available at **www.cdc.gov/**. Last accessed July 2010.
2. Stone RI, Emerging issues in long-term care, In: Binstock R, George L, eds, *Handbook of Aging and the Social Sciences,* 6th ed., New York: Academic Press; 2006; pp. 397–417.
3. American Healthcare Association (AHCA), Alliance for Quality Nursing Home Care, *2009 Annual Quality Report,* Washington, DC; AHCA; 2009. Available at **www.ahcancal.org/research_data/quality/Documents/2009AnnualQualityReport.pdf**. Last accessed May 2010.
4. Commonwealth of Massachusetts, Office of Health and Human Services (EOHHS), *Minimum Data Set; 2010,* Boston, MA: EOHHS. Available at **http://www.mass.gov/?pageID=eohhs2terminal&L=7&L0=Home&L1=Provider&L2=Certification%2C+Licensure%2C+and+Registration&L3=Facilities&L4=Health+Care+Facilities+and+Programs&L5=Long+Term+Care+Facilities&L6=Nursing+Homes&sid=Eeohhs2&b=terminalcontent&f=dph_quality_healthcare_p_ltc_minimum_data_set&csid=Eeohhs2**. Last accessed May 2010.
5. National Quality Forum (NQF), *National Priorities Partnership,* Washington, DC: NQF. Available at **www.nationalprioritiespartnership.org**. Last accessed July 2010.
6. NQF, National Voluntary Consensus Standards for Nursing Homes. Available at **www.qualityforum.org/Projects/Nursing_Homes.aspx**. Last Accessed June 2010.
7. NQF, *Measure Evaluation Criteria,* Washington, DC: NQF; 2008. Available at **www.qualityforum.org/docs/measure_evaluation_criteria.aspx**. Last accessed July 2010.
8. Rubenstein LZ, Roggins AG, Josephson KR, Falls in the nursing home, *Ann Intern Med,* 1994;121(6):442–451.
9. Blake AJ, Morgan K, Bendall MJ et al., Falls by elderly people at home: prevalence and associated factors, *Age Ageing* 1988;17(6):365–472.
10. O'Loughlin JL, Robitaille Y, Boivin JF, et al., Incidence of and risk factors for falls and injurious falls among the community-dwelling elderly, *Am J Epidemiol,* 1993;137(3):342–354.
11. Rubenstein LZ, Roggins AG, Josephson KR., pp. 442–451.
12. Alexander NB, Gait disorders in older adults, *J Am Geriatr Soc,* 1996;44(4):434–451.
13. Trueblood PR, Rubenstein LZ, Assessment of instability and gait in elderly persons, *Compr Ther,* 1991;17(8):20–29.
14. Gorina Y, Kelly T, Lubitz J, Hines Z, *Trends in influenza and pneumonia among older persons in the United States,* Hyattsville, MD: Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS); 2008. Available at **http://www.cdc.gov/nchs/data/ahcd/agingtrends/08influenza.pdf**. Last accessed July 2010.
15. Ibid.
16. CDC, *Pneumococcal polysaccharide vaccine. What you need to know,* Atlanta, GA: CDC; 1997.
17. Fry AM, Shay DK, Holman RC, et al., Trends in hospitalizations for pneumonia among persons aged 65 and older in the United States, 1988-2002, *JAMA,* 2005; 294(21): 2712-2719.
18. Nicolle LE, McIntyre M, Zacharias H, et al., Twelve month surveillance of infections in institutionalized elderly men, *J Am Geriatr Soc,* 1984;32(7):513-519.
19. Magaziner J, Tenney JH, Deforge B, et al., Prevalence and characteristics of nursing home–acquired infections in the aged, *J Am Geriatr Soc,* 1991;39(11):1071-1078.
20. Finnegan TP, Austin TW, Cape RD, A 12-month fever surveillance study in a veterans' long-stay institution, *J Am Geriatr Soc,* 1985;33(9):590-594.
21. Jackson MM, Fierer J, Barrett-Conner E, et al., Intensive surveillance for infections in a three year study of nursing home patients, *Am J Epidemiol,* 1992;135(6):685-696.
22. Strausbaugh LJ, Joseph CL, The burden of infection in long-term care, *Infect Control Hosp Epidemiol,* 2000;21(10):674-9.
23. Zimmer JG, Bentley DW, Valenti WM, et al., Systemic antibiotic use in nursing homes. A quality assessment, *J Am Geriatr Soc,* 1986;34(10):703-710.

24. Katz PR, Beam TR Jr, Brand F, et al., Antibiotic use in the nursing home. Physician practice patterns, *Arch Int Med,* 1990;150(7):1465-1468.

25. Lee Y, Thrupp LD, Friis HM, et al., Nosocomial infection and antibiotic utilization in geriatric patients: a pilot prospective surveillance program in skilled nursing facilities, *Gerontology,* 1992;38(4):223-232.

26. Saint S, Kauman SR, Rogers MA, et al., Risk factors for nosocomial urinary tract-related bacteremia: a case control study, *Am J Infect Control,* 2006;34(7):401-407.

27. Centers for Medicare & Medicaid Services (CMS). *MDS Quality Measure/Indicator Report,* 2009, Baltimore, MD: CMS; 2009. Available at **www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp#TopOfPage**. Last accessed July 2010.

28. Lekan-Rutledge D, Colling J, Urinary incontinence in the frail elderly: event when it's too late to prevent a problem, you can still slow its progress, *Am J Nurs,* 2003;103(3 suppl):36-46.

29. CMS. Appendix PP, rev. 55. F483.25d Urinary Incontinence, In: *State Operations Manual, Guidance to Surveyors for Long Term Care Facilities,* pp. 187-224. 2006. Available at **http://cms.hhs.gov/manuals/Downloads/som107ap_pp_guidelines_ltcf.pdf**. Last accessed July 2010.

30. CMS. *MDS Quality Measure/Indicator Report.* Available at **http://www.cms.gov/MDSPubQIandResRep/02_qmreport.asp**. Last accessed July 2010.

31. Nursing Home Quality Initiative. MedQIC, Urinary Catheters, 2004. Available at **http://www.qualitynet.org/dcs/ContentServer?c=MQParents&pagename=Medqic%2FContent%2FParentShellTemplate&cid=1109274846317&parentName=Topic**. Last accessed July 2010.

32. Quality Measures Management Information System (QMIS). Measure details. November 12, 2002. Available at **https://www.qualitynet.org/qmis/measureDetailView.htm?measureId=10176&viewType=0**. Last accessed July 2010.

33. CMS. *MDS Quality Measure/Indicator Report.* Available at **http://www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp#TopOfPage**. Last accessed July 2010.

34. American Health Care Association (AHCA), *Trends in Publicly Reported Nursing Facility Quality Measures.* Washington, DC: AHCA; 2009. Available at **http://www.ahcancal.org/research_data/trends_statistics/Documents/trends_nursing_facilities_quality_measures.pdf**. Last accessed July 2010.

35. Sullivan-Marx EM, Strumpf NE, Evans LK, et al., Initiation of physical restraint in nursing home residents following restraint reduction efforts, *Res Nurs Health,* 1999;22(5): 369-379.

36. Capezuti E, Evans L, Strumpf NE, et al., Physical restraint use and falls in nursing home residents, *J Am Geriatr Soc,* 1996;44(6):627-33.

37. Castle NG, Mor V, Physical restraints in nursing homes: a review of the literature since the Nursing Home Reform Act of 1987, *Med Care Res Rev,* 1998;55(2):139-170.

38. Castle N, Mor V, pp.139-170.

39. Williams C, Finch C. Physical restraints: not fit for woman, man, or beast, *J Am Geriatr Soc,* 1997;45(6):773-775.

40. Sullivan-Marx E, Achieving restraint-free care of acutely confused older adults, *J Gerontol Nurs,* 2001;27(4):56-61.

41. Evans LK, Strumpf NE, Allen-Taylor SL, et al., A clinical trial to reduce restraints in nursing homes, *J Am Geriatr Soc,* 1997;45(6):675-81

42. Capezuti E, Maislin G, Strumpf NE, et al., Side rail use and bed-related fall outcomes among nursing home residents, *J Am Geriatr Soc,* 2002;50(1):90-6.

43. Parker K, Miles SH. Deaths caused by bed rails, *J Am Geriatr Soc,* 1997;45(7):797-802.

44. Feinsod FM, Moore M, Levenson S, Eliminating full-length bed rails from long term care facilities, *Nurs Home Med,* 1997;5:257-263.

45. CMS. *Revised Long-Term Care Resident Assessment Instrument User's Manual, version 2.0. December 2002, with August 2003 and all other subsequent posted updates incorporated.* Available at **http://www.cms.gov/NursingHomeQualityInits/20_NHQIMDS20.asp**. Last accessed July 2010.

46. Gastmans C, Milisen K, Use of physical restraint in nursing homes: clinical-ethical considerations, *J Med Ethics,* 2006;32(3):148-152.

47. CMS. *MDS Quality Measure/Indicator Report.* Available from **http://www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp#TopOfPage**. Last accessed July 2010.

48. Fried TR, Bradley EH, Williams CS et al., Functional disability and health care expenditures for older persons, *Arch Intern Med,* 2001;161(21):2602-2607.

49. Pauly L, Stehle P, Volkert D, Nutritional situation of elderly nursing home residents, *Z Gerontol Geriatr,* 2007;40(1): 3-12.

50. Amella EJ, Feeding and hydration issues for older adults with dementia, *Nurs Clin North Am,* 2004;39(3):607-623.

51. CMS, *MDS Quality Measure/Indicator Report.* Available from **http://www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp#TopOfPage**. Last accessed July 2010.

52. Rubenstein LZ, Josephson KR, Robbins AS, Falls in the nursing home, *Ann Intern Med,* 1994; 121(6):442-451.

53. Vu MQ, Weintraub N, Rubenstein LZ, Falls in the nursing home: are they preventable? *J Am Med Dir Assoc*, 2004; 5(6):401-6.

54. Tinetti ME, Clinical practice. Preventing falls in elderly persons, *N Engl J Med,* 2003;348(1):42-49.

55. Vu MQ, Weintraub N, Rubenstein LZ, pp.401-406.

56. Ferrell BA, Ferrell BR, Osterweil D, Pain in the nursing home, *J Am Geriatr Soc,* 1990;38(4):409-414.

57. Parmelee PA, Smith B, Katz IR, Pain complaints and cognitive status among elderly institution residents, *J Am Geriatr Soc,* 1993;41(5):517-522.

58. Sengstaken EA, King SA, The problems of pain and its detection among geriatric nursing home residents, *J Am Geriatr Soc,* 1993;41(5):541-544.

59. Weiner DK, Rudy TE, Attitudinal barriers to effective treatment of persistent pain in nursing home residents, *J Am Geriatr Soc,* 2002;50(12):2035-2040.

60. CMS, *MDS Quality Measure/Indicator Report.* Available at **http://www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp?isSubmitted=qm3&group=08&qtr=14**. Last accessed July 2010.

61. Mor V, Zinn J, Angelelli J, et al., Driven to tiers: socioeconomic and racial disparities in the quality of nursing home care, *Milbank Q,* 2004;82(2):227-256.

62. Wu N, Miller SC, Lapane K, et al., The problem of assessment bias when measuring the hospice effect on nursing home residents' pain, *J Pain Symptom Manage,* 2003;26(5): 998-1009.

63. Ferrell BA, Ferrell BR, Osterweil D, pp. 409-414.

64. Parmelee PA, Smith B, Katz IR, pp. 517-522.

65. Sengstaken EA, King SA, pp. 541-544.

66. Weiner DK, Rudy TE, pp. 2035-2040.

67. CMS, *MDS Quality Measure/Indicator Report.* Available at **http://www.cms.hhs.gov/MDSPubQIandResRep/02_qmreport.asp?isSubmitted=qm3&group=08&qtr=14**. Last accessed July 2010.

68. Mor V, Zinn J, Angelelli J, Teno J, Miller S, Driven to tiers: socioeconomic and racial disparities in the quality of nursing home care, *The Milbank Quarterly*, 2004;82(2):227-56.

69. Wu N, Miller S, Lapane K, Gozalo P, The problem of assessment bias when measuring the hospice effect on nursing home residents' pain, *Journal of Pain and Symptom Management,* 2003;26(5):998-1009.

70. Russo CA, Steiner C, Spector W, Hospitalizations related to pressure ulcers among adults 18 years and older, 2006 (Healthcare Cost and Utilization Project Statistical Brief No. 64, 2008. Available at **http://www.hcup-us.ahrq.gov/reports/statbriefs/sb64.pdf**. Last accessed July 2010.

71. Bates-Jensen BM, Quality indicators for prevention and management of pressure ulcers in vulnerable elders, *Ann Intern Med*, 2001;135(8 Pt 2), 744-751.

72. Institute for Healthcare Improvement (IHI), *Relieve the Pressure and Reduce Harm.* May 21, 2007. Available at **www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/ImprovementStories/FSRelievethePressureandReduceHarm.htm**. Last accessed July 2010.

73. Bates-Jensen BM, pp. 744-751.

74. Hurd D, Moore T, Radley D, Williams C, Pressure ulcer prevalence and incidence across post-acute care settings. Home Health Quality Measures & Data Analysis Project, Report of Findings, prepared for CMS/OCSQ, Baltimore, MD, under Contract No. 500-2005-000181 TO 0002. 2010.

75. MacLean DS. Preventing & managing pressure sores, *Caring for the Ages*, 2003;4(3):34-37. Available at **http://www.amda.com/publications/caring/march2003/policies.cfm**.

76. Bates-Jensen BM, pp. 744-751.

77. Russo CA, Steiner C, Spector W.

78. Bates-Jensen BM, pp. 744-751.

79. Hurd D, Moore T, Radley D, Williams C. Pressure ulcer prevalence and incidence across post-acute care settings. Home Health Quality Measures & Data Analysis Project, Report of Findings, prepared for CMS/OCSQ, Baltimore, MD, under Contract No. 500-2005-000181 TO 0002. 2010.

80. Russo CA, Steiner C, Spector W.

81. IHI, *Relieve the Pressure and Reduce Harm.*

82. Russo CA, Steiner C, Spector W.

83. MacLean DS, pp. 34-37.

84. Park-Lee E, Caffrey C, *Pressure Ulcers Among Nursing Home Residents: United States, 2004,NCHS Data Brief No. 14*, Hyattsville, MD: National Center for Health Statistics; 2009. Available at **http://www.cdc.gov/nchs/data/databriefs/db14.htm**. Last accessed July 2010.

85. Brega A, Goodrich G, Hittle D, Conway K, Levy C, Empirical review and validation of refined pressure ulcer quality measures draft, Denver: Division of Health Care Policy and Research University of Colorado at Denver; 2008.

86. Lynn J, West J, Hausmann S, et al. Collaborative clinical quality improvement for pressure ulcers in nursing homes, *J Am Geriatr Soc,* 2007;55(10), 1663-1669.

87. Parmelee PA, Katz IR, Lawton MP, Depression among institutionalized aged: assessment and prevalence estimation, *J Gerontol*, 1989;44(1):M22-M29.

88. Heston LL, Garrard J, Makris L, et al., Inadequate treatment of depressed nursing home elderly, *J Am Geriatr Soc,* 1992;40(11):1117-1122.

89. Weintraub D, Datto CJ, Streim JE, et al., Second-generation issues in the management of depression in nursing homes, *J Am Geriatr Soc,* 2002;50(12):2100-2101.

90. Datto CJ, Oslin DW, Streim JE, et al., Pharmacologic treatment of depression in nursing home residents: a mental health services perspective, *J Geriatr Psychiatry Neurol*, 2002;15(3):141-146.

91. Kroenke K, Spitzer RL, Williams JB, The PHQ-9: Validity of a brief depression severity measure, *J Gen Intern Med*, 2001;16(9):606-613.

Appendix A
Specifications of the National Voluntary Consensus Standards for Nursing Homes 2010

THE FOLLOWING TABLE PRESENTS the detailed specifications for the Nation Quality Forum (NQF)-endorsed® *National Voluntary Consensus Standards Nursing Homes 2010*. All information presented has been derived directly from measure sources/developers without modification or alteration (except when the measure developer agreed to such modification during the NQF Consensus Development Process) and is current as of June 21, 2011. All NQF-endorsed voluntary consensus standards are open source, meaning they are fully accessible and disclosed. Measure stewards include the Agency for Healthcare Research and Quality, the American Medical Directors' Association, American Nurses Association, Centers for Medicare and Medicaid Services, RAND Corporation, and University of Colorado Health Sciences Center.

NQF #673: PHYSICAL THERAPY OR NURSING REHABILITATION/RESTORATIVE CARE FOR LONG-STAY PATIENTS WITH NEW BALANCE PROBLEM

Measure Steward: RAND Corporation

Description: Percentage of long-stay nursing home patients 65 years old or older who have a new balance problem who receive physical therapy or nursing rehabilitation/restorative care.

Numerator: Patients in the denominator who received physical therapy or nursing rehabilitation/restorative care

Time Window: All patients in the denominator whose quarterly MDS indicates a new balance problem (compared to the prior MDS) and who received physical therapy in the 4 months prior or 1 month after the noted new problem OR nursing rehabilitation/restorative care in the 7 days prior.

Numerator Details: Physical therapy (PT): Administrative claim for PT (defined in previously submitted documentation) in the 4 months before or 1 month after the date describing the new balance problem

OR

MDS 3.0 data (O5f) indicates training and skill practice in walking for at least 15 minutes for at least 1 day in the 7 days prior to the date describing the new balance problem.

Denominator: Long-stay nursing home patients 65 years or older with a new balance problem

Time Window: Nursing home patients 65 years old or older with a new balance problem any time during the study period with 14 months of MDS and administrative claims data.

Denominator Details: New balance problem: Consecutive quarterly MDS reports contain measures of Balance During Transitions and Walking: Moving from seated to standing position (G3a) and the second indicates a worsening status from the first. Worsening status = worsening by at least 1 level. [0. Steady at all times; 1. Not steady, but able to stabilize without human assistance; 2. Not steady, only able to stabilize with human assistance]

NOTE: While this item has been somewhat modified in MDS 3.0, the essence of the content remains the same.

MDS 3.0:

Balance during Transitions and Walking

MDS 3.0 item G3a. Moving from seated to standing position [replaces MDS 2.0 Test for Balance G3a (while standing) and G3b (while sitting) per Saliba 2008]

0 = Steady at all times
1 = Not steady, but able to stabilize without human assistance
2 = Not steady, only able to stabilize with human assistance

Saliba D, Buchanan J. Development & Evaluation of a Revised Nursing Home Assessment Tool: MDS 3.0. RAND report, CMS MDS 3.0 Validation Contract No. 500-00-0027/Task Order #2, April 2008.

Exclusions: Patients are excluded from the denominator if they are short-stay or have advanced dementia or a poor prognosis.

Risk Adjustment: N/A

NQF #674: PERCENT OF RESIDENTS EXPERIENCING ONE OR MORE FALLS WITH MAJOR INJURY (LONG STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from all non-admission MDS 3.0 assessments of long-stay nursing facility residents which may be annual, quarterly, significant change, significant correction, or discharge assessment. It reports the percent of residents who experienced one or more falls with major injury (e.g., bone fractures, joint dislocations, closed head injuries with altered consciousness, and subdural hematoma) in the last year (12-month period). The measure is based on MDS 3.0 item J1900C, which indicates whether any falls that occurred were associated with major injury.

Numerator: The numerator is based on the number of long-stay nursing facility residents who experienced one or more falls that resulted in major injury (J1900c = 1 or 2) on any non-admission MDS assessment in the last 12 months which may be an annual, quarterly, significant change, significant correction or discharge assessment. In the MDS 3.0, major injury is defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma.

Time Window: The denominator time window is a 12-month look-back period. It is updated quarterly based on MDS 3.0 annual, quarterly, significant change, significant correction or discharge assessments. Annual percentages are reported to ensure adequate sample size.

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are counted if J1900 = 1 or 2 (resident had had one fall with major injury, or two or more falls with major injury.

Denominator: The denominator is the total number of long-stay residents in the nursing facility who were assessed during the selected time window and who did not meet the exclusion criteria.

Time Window: The denominator time window is a 12-month look-back period. It is updated quarterly based on MDS 3.0 annual, quarterly, or significant change or correction assessments. Annual percentages are reported to ensure adequate sample size.

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents who had an annual, quarterly, significant change, significant correction, or discharge assessment during the previous 12 months (A0310.A = 02, 03, 04, 05 or 06).

Exclusions: Residents with MDS admission assessments (OBRA or a 5-day PPS assessment) from the current quarter are excluded. Also excluded are residents for whom data from the relevant section of the MDS are missing. Residents must be present for at least 100 days to be included in long-stay measures.

Long-stay facilities are excluded from the public reporting if their sample includes fewer than 30 residents.

Risk Adjustment: N/A

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #675: THE PERCENTAGE OF RESIDENTS ON A SCHEDULED PAIN MEDICATION REGIMEN ON ADMISSION WHO REPORT A DECREASE IN PAIN INTENSITY OR FREQUENCY (SHORT STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from the MDS 3.0 assessment of short-stay nursing facility residents and reports the percentage of those short-stay residents who can self-report and who are on a scheduled pain medication regimen at admission (5-day PPS MDS assessment) and who report lower levels of pain on their discharge MDS 3.0 assessment or their 14-day PPS MDS assessment (whichever comes first) when compared with the 5-day PPS MDS assessment.

Numerator: The numerator is the number of short-stay residents who have a 14-day PPS assessment or discharge assessment (whichever comes first), who can self-report, (MDS 3.0 item J200=1) and who are on a scheduled pain medication regimen (MDS 3.0 item J0100A=1), reporting a defined reduction in pain when compared to their earlier assessment (a 5-day PPS assessment). Reduced pain is indicated, when compared to the prior assessment, there is a decrease in pain frequency (MDS 3.0 item J0400) or a decrease in pain intensity (as reported in MDS 3.0 item J0600A=0–10, with 10 being the worst pain you can imagine, or a decrease in the verbal description of pain (MDS 3.0 item J0600B=1–4, with 4 being very severe, horrible pain).
Time Window: The numerator data come from the target MDS 3.0 assessment (which may be the 14-day PPS assessment or the discharge assessment) and refers to pain reduction reported since the previous assessment (a 5-day PPS) in the selected quarter (3 month period). Change is based on the difference in pain between the admission assessment and the next assessment (either the 14 day or discharge, whichever comes first).

Numerator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The numerator counts short-stay residents with both a 5-day PPS MDS 3.0 assessment and a 14-day PPS MDS 3.0 assessment or a discharge MDS 3.0 assessment (whichever comes first); who have been on a scheduled pain medication regimen (J0100A=1), who self-report a reduction in pain. A reduction in pain is defined as one of the followings: 1) reduced frequency of pain between the two assessments (J0400) or reduced intensity of pain (J0600A) or reduced verbal descriptor of pain (J0600B). Higher scores of these items reflect more frequent or severe pain, and so a reduction in pain is calculated if the score on any of these items is lower compared to the score of the previous assessment.

Denominator: The denominator is the total of all short-stay residents in the nursing facility who have a 5-day PPS MDS 3.0 assessment and either a 14-day PPS MDS 3.0 assessment or a ischarge MDS 3.0 assessment (whichever comes first); who have been on a scheduled pain medication regimen (MDS 3.0 item J0100A=1) and who do not meet the exclusion criteria.
Time Window: Denominator data come from admission (OBRA) or 5-day PPS assessments and discharge or 14-day MDS 3.0 assessments (whichever comes first) conducted during each quarter (3-month period).

Denominator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The target population includes all short-stay residents who have had a 5-day MDS 3.0 PPS assessment (A0301.B=1) and an MDS 3.0 discharge assessment (A0301.F=10 or 11) or a 14-day MDS 3.0 PPS assessment (A0301.B=2) (whichever comes first) during the selected quarter, except those who meet the exclusion criteria.

Exclusions: A resident is excluded from the denominator if there are missing data in the relevant MDS questions.
If the short-stay facility has fewer than 20 residents in the sample, they are excluded from public reporting because of small sample size.

Risk Adjustment: N/A

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #676: PERCENT OF RESIDENTS WHO SELF-REPORT MODERATE TO SEVERE PAIN (SHORT STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM on pain severity for short-stay residents (people who are discharged within 100 days of admission). This updated measure is based on data from the Minimum Data Set (MDS 3.0) 14-day PPS assessments. This measure reports the percentage of short-stay residents with a 14-day PPS assessment during a selected quarter (3 months) who have reported almost constant or frequent pain and at least one episode of moderate to severe pain, or any severe or horrible pain, in the 5 days prior to the 14-day PPS assessment.

Numerator: The numerator is the number of short-stay residents who are able to self-report (item 200=1), who have a 14-day PPS assessment during the preceding 6 months, who report almost constant or frequent pain (item J0400=1 or 2) AND at least one episode of moderate to severe pain (item J0600A=5, 6, 7, 8, or 9 on a scale of 1–10, with 10 being the worst pain you can imagine
OR
item J0600B=2 or 3 on a scale of 0–4, with 4 being very severe, horrible pain)
OR
very severe/horrible pain of any frequency (item J0600A=10 on a scale of 1 to 10
OR
item J0600B=4 on a scale of 0 to 4) in the 5 days prior to the 14-day PPS assessment.
Time Window: The numerator data come from MDS 3.0 14-day PPS assessments conducted during the six months preceding each selected quarter (3-month period).

Numerator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The numerator details include the number of short-stay residents able to self-report (item J200=1) and who report almost constant or frequent pain on a scale of 1 to 4. These numeric ratings were defined as the following: 1=the pain is almost constantly (item J0400=1 or 2) AND at least one episode of moderate to severe pain (item J0600A=5, 6, 7, 8, or 9 on a scale of 1-10, with 10 being the worst pain you can imagine
OR
item J0600B=2 or 3 on a scale of 0-4, with 4 being very severe, horrible pain)
OR
very severe/horrible pain of any frequency (item J0600A=10 on a scale of 1 to 10
OR
item J0600B=4 on a scale of 0 to 4) in the 5 days prior to the assessment.

Denominator: The denominator is the total of all short-stay residents in the nursing facility who have received an MDS 3.0 14-day PPS assessment during the preceding 6 months from the selected quarter and who do not meet the exclusion criteria.

Time Window: Denominator data come from MDS 3.0 14-day PPS assessments conducted during the 6 months preceding each quarter (3-month period).

Denominator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The target population includes all short-stay residents who have had a MDS 3.0 14-day PPS assessment (item A03100.B=2) during the 6 months preceding the selected quarter, except those who meet the exclusion criteria.

Exclusions: A resident is excluded from the denominator if there are missing data in the relevant questions in the target MDS assessment.
Short-stay facilities with fewer than 20 residents are excluded from public reporting because of small sample size.

Risk Adjustment: N/A

NQF #677: PERCENT OF RESIDENTS WHO SELF-REPORT MODERATE TO SEVERE PAIN (LONG STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: The proposed long-stay pain measure reports the percent of long-stay residents of all ages in a nursing facility who reported almost constant or frequent pain and at least one episode of moderate to severe pain or any severe or horrible pain in the 5 days prior to the MDS assessment (which may be an annual, quarterly, significant change or significant correction MDS) during the selected quarter. Long-stay residents are those who have had at least 100 days of nursing facility care. This measure is restricted to the long-stay population because a separate measure has been submitted for the short-stay residents (those who are discharged within 100 days of admission).

Numerator: The numerator is the number of long-stay residents with an MDS assessment (which may be an annual, quarterly, significant change or significant correction assessment) during the selected quarter and who self-report (v200=1) almost constant or frequent pain on a scale of 1 to 4 (J0400=1 or 2) AND at least one episode of moderate to severe pain (item J0600A=5, 6, 7, 8, or 9 on a scale of 1–10, with 10 being the worst pain you can imagine

OR

item J0600B=2 or 3 on a scale of 0–4, with 4 being very severe, horrible pain)

OR

very severe/horrible pain of any frequency (item J0600A=10 on a scale of 1 to 10

OR

item J0600B=4 on a scale of 0–4) in the 5 days prior to the assessment.

Time Window: The numerator data are from an MDS annual, quarterly, significant change or significant correction assessments conducted during each quarter (3-month period)

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. The numerator includes the number of long-stay residents reporting almost constant or frequent pain on a scale of 1 to 4 for those who can self-report (J0200=1). These numeric ratings were defined as follows: 1=the pain is experienced almost constantly (MDS 3.0 item J0400=1 or 2) AND at least one episode of moderate to severe pain (item J0600.A=5,6,7,8, or 9 on a scale of 1-10, with 10 being the worst pain you can imagine

OR

item J0600.B=2 or 3 on a scale of 0-4, with 4 being very severe, horrible pain)

OR

very severe/horrible pain of any frequency (item J0600A=10 on a scale of 1 to 10

OR

item J0600.B=4 on a scale of 0-4) in the 5 days prior to the assessment.

NQF #677: PERCENT OF RESIDENTS WHO SELF-REPORT MODERATE TO SEVERE PAIN (LONG STAY)* *(continued)*

Denominator: The denominator is the total of all long-stay residents in the nursing facility who have an MDS assessment which may be an annual, quarterly, significant change or significant correction assessment during the selected quarter and who do not meet the exclusion criteria.

Time Window: Denominator data come from MDS 3.0 annual, quarterly, significant change or significant correction MDS, assessments conducted during each quarter (3-month period).

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents with a completed annual, quarterly, significant change or significant correction MDS 3.0 assessment (A0310.A=02, 03, 04, 05, 06) during the selected quarter, and who can self-report (J0200=1), except for those who meet the exclusion criteria.

Exclusions: A resident is excluded from the denominator if the MDS assessment was conducted within 14 days of admission or if there are missing data in the responses to the relevant questions in the MDS assessment.

If the facility sample includes fewer than 30 residents, then the facility is excluded from public reporting because of small sample size.

Risk Adjustment: Resident-level limited covariate risk adjustment was used for persons with independence or modified independence in daily decision making on prior MDS assessments (Item C1000—made decisions regarding tasks of daily life=0 [independent—decisions consistent/reasonable] or 1 [modified independence—some difficulty in new situations only]).

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #678: PERCENT OF RESIDENTS WITH PRESSURE ULCERS THAT ARE NEW OR WORSENED (SHORT STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM pressure ulcer measure which currently includes Stage 1 ulcers. The measure is based on data from the MDS 3.0 assessment of short-stay nursing facility residents and reports the percentage of residents who have Stage 2-4 pressure ulcers that are new or have worsened. The measure is calculated by comparing the Stage 2-4 pressure ulcer items on the discharge assessment and the previous MDS assessment (which may be an OBRA admission or 5-day PPS assessment).

The quality measure is restricted to the short-stay population defined as those who are discharged within 100 days of admission. The quality measure does not include the long-stay residents who have been in the nursing facility for longer than 100 days. A separate measure has been submitted for them.

Numerator: The numerator is the number of short-stay residents with a discharge MDS 3.0 assessment during the selected time window who have one or more Stage 2-4 pressure ulcer(s) that are new or that have worsened on the discharge assessment compared to the previous OBRA admission or 5-day PPS assessment. Stage 1 ulcers are excluded from this measure because recent studies have identified difficulties in objectively measuring them across different populations (Lynn, 2007).

Time Window: For every quarter (3-month period), the Centers for Medicare & Medicaid Services (CMS) selects the MDS 3.0 discharge assessments from each nursing facility.

Numerator Details: The numerator is the number of short-stay residents with a MDS 3.0 discharge assessment during the selected time window and who have one or more Stage 2-4 pressure ulcer(s) that are new or have worsened comparing the discharge assessment (A0310.F=10, 11) and the prior OBRA admission (A0310.A=01) or the 5-day PPS assessment (A0310.B=01). On the discharge assessment, item M0800A>0 or M0800B>0 or M0800C>0: M0800=Worsening in Pressure Ulcer Status Since Prior Assessment (Indicate the number of current pressure ulcers that were not present or were are a lesser stage on the prior assessment: A. Stage 2, B. Stage 3, and C. Stage 4)

OR

The pressure ulcers are new or fail to improve. This is indicated by comparing the discharge assessment with the prior OBRA admission or 5-day PPS assessment on item M0300 (current number of unhealed [non-epithelialized] pressure ulcers at each stage). If M0300 is equivalent or greater in the discharge assessment than in the OBRA admission or 5-day PPS assessment for each stage of ulcer, including B1 (Stage 2) OR C1 (Stage 3), or D1 (Stage 4) then they are included as having a pressure ulcer that failed to improve or is a new pressure ulcer.

Definitions of pressure ulcer stages for the MDS 3.0: M0300 B.1=1 or >Stage 2: Partial thickness loss or dermis presenting as shallow open ulcer with red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.

OR

M0300 C.1=1 or >Stage 3: Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon, or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining or tunneling.

OR

M0300 D.1=1 or >Stage 4: Full thickness tissue loss with exposed bone or tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining or tunneling.

Denominator: All short-stay nursing facility residents except those who meet the exclusion criteria.

Time Window: For every quarter (3-month period), CMS selects the MDS 3.0 discharge assessments from each nursing facility.

NQF #678: PERCENT OF RESIDENTS WITH PRESSURE ULCERS THAT ARE NEW OR WORSENED (SHORT STAY)* *(continued)*

Denominator Details: The denominator is the number of short-stay residents who have been assessed with MDS 3.0 discharge assessments during the selected time window and whose date of discharge is less than or equal to 100 days since their most recent entry date (A1600) for the OBRA admission or 5-day PPS assessment, except for those meeting the exclusion criteria.

Exclusions: A short-stay resident is excluded from the denominator if there is no discharge assessment or if missing data precludes calculation of the measure.

Short-stay facilities are excluded from public reporting if they have fewer than 20 residents due to small sample size.

Risk Adjustment: Resident-level limited covariate risk adjustment is performed. Covariates are based on the 5-day PPS assessment and include residents who have healed pressure ulcer(s), require limited or more assistance in bed, have bowel incontinence at least once a week, diabetes or peripheral vascular disease, or low Body Mass Index (BMI between 12 -19). Resident-level covariates are used in a logistic regression model to calculate a resident-level expected QM score (the probability that the resident will evidence the outcome, given the presence or absence of characteristics measured by the covariates). Then, an average of all resident-level expected QM score for the nursing facility is calculated to create a facility-level expected QM score. The final facility-level adjusted QM score is based on a calculation which combines the facility-level expected score and the facility-level observed score.

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #679: PERCENT OF HIGH-RISK RESIDENTS WITH PRESSURE ULCERS (LONG STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: CMS currently has this measure in their QMs but it is based on data from MDS 2.0 assessments and it includes Stage 1 ulcers. This proposed measure will be based on data from MDS 3.0 assessments of long-stay nursing facility residents and will exclude Stage 1 ulcers from the definition. The measure reports the percentage of all long-stay residents in a nursing facility with an annual, quarterly, significant change or significant correction MDS assessment during the selected quarter (3-month period) who were identified as high risk and who have one or more Stage 2-4 pressure ulcer(s). High risk populations are those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition.

Long-stay residents are those who have been in nursing facility care for more than 100 days. This measure is restricted to the population that has long-term needs; a separate pressure ulcer measure is being submitted for short-stay populations. These are defined as having a stay that ends with a discharge within the first 100 days.

Numerator: The numerator is the number of long-stay residents who have been assessed with annual, quarterly, significant change or significant correction MDS 3.0 assessments during the selected time window and who are defined as high risk with one or more Stage 2-4 pressure ulcer(s). High risk populations are those who are comatose, or impaired in bed mobility or transfer, or suffering from malnutrition.

Time Window: The data are collected quarterly. The term "annual" in this sentence refers to one of the various MDS 3.0 assessments utilized to calculate the measure (which may be an admission, annual, quarterly, significant change or correction assessment).

Each quarter (3-month window) CMS selects the MDS 3.0 annual, quarterly, significant change or significant correction MDS 3.0 assessments from each nursing facility.

Numerator Details: The numerator is the number of long-stay residents who have been assessed with annual, quarterly, significant change or significant correction MDS 3.0 assessments during the selected time window and who are reported as having one or more Stage 2-4 pressure ulcer(s) M0300 (current number of unhealed [non-epithelialized] pressure ulcers at each stage); Stage 1 ulcers are not included in this measure because recent studies have identified difficulties in objectively measuring them across different populations (Lynne, 2007).

M0300 B. 1=1 or > (number of Stage 2): Partial thickness loss or dermis presenting as a shallow open ulcer with red or pink wound bed, without slough. May also present as an intact or open/ruptured blister.

OR

M0300 C.1=1 or > (number of Stage 3): Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon, or muscle is not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining or tunneling.

OR

M0300 D.1=1 or > (number of Stage 4): Full thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar may be present on some parts of the wound bed. Often includes undermining or tunneling.

OR

NQF #679: PERCENT OF HIGH-RISK RESIDENTS WITH PRESSURE ULCERS (LONG STAY)* *(continued)*

Numerator Details: *(continued)*

Section I — Other — Active Diagnoses in the last 7 days I8000=ICD-9-CM codes for pressure ulcers 707.22 (Stage 2), 707.23 (Stage 3), or 707.24 (Stage 4).

Lynn J, West J, Hausmann S, Gifford D, Nelson R, McGann P, Bergstrom N, Ryan JA (2007). Collaborative clinical quality improvement for pressure ulcers in nursing homes. Journal of the American Geriatrics Society, 55(10), 1663-9.

Denominator: The denominator includes all long-stay residents who received an annual, quarterly, or significant change or significant correction assessment during the target quarter and who did not meet exclusion criteria.

Time Window: Every quarter (3-month period) CMS selects the MDS 3.0 annual, quarterly, significant change or significant correction assessments from each nursing facility.

Denominator Details: The denominator is the number of long-stay residents who have been assessed with annual, quarterly, significant change or significant correction MDS 3.0 assessments (A0310.A=02, 03, 04, 05, 06) during the selected time window and who are defined as high risk by meeting one of the following criteria on the assessment:

1. Impaired in bed mobility or transfer as indicated by item G0110.A.1, Bed mobility (self-performance) or G0110B.1 Transfer (self-performance)=3(extensive assistance), 4 (total dependence),
   7 (activity occurred only once or twice) or 8 (activity [or any part of the ADL was not performed by resident or staff at all over the entire 7 day period)

OR

2. Item B0100 (Comatose)=1

OR

3. Section I Active Diagnoses Item I5600 (Malnutrition [protein or calorie] or at risk for malnutrition) is checked.

Exclusions: A long-stay resident is excluded from the denominator if the MDS assessment in the current quarter is an OBRA admission assessment or a 5-day PPS assessment or if there is missing data in the relevant sections of the MDS. The OBRA admission assessment and a 5-day PPS assessment are excluded because pressure ulcers identified on them reflect care received in the previous setting and does not reflect the quality of care provided in the nursing facility.

Nursing facilities with fewer than 30 residents in the sample are excluded from public reporting because of small sample size.

Risk Adjustment: N/A

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #680: PERCENT OF NURSING HOME RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE SEASONAL INFLUENZA VACCINE (SHORT STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: The measure is based on data from MDS 3.0 assessments of nursing facility residents. The measure reports the percent of short-stay nursing facility residents who are assessed and appropriately given the seasonal influenza vaccination during the influenza season as reported on the target MDS assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS or discharge assessment) during the selected quarter. Short-stay residents are those residents who are discharged within the first 100 days of the stay. The measure is restricted to the population that has short-term needs and does not include the population of residents with stays longer than 100 days. A separate quality measure has been submitted for the long-stay population.

The specifications of the proposed measure mirror those of the harmonized measure endorsed by the National Quality Forum under measure number 0432 Influenza Vaccination of Nursing Home/ Skilled Nursing Facility Residents. The NQF standard specifications were developed to achieve a uniform approach to measurement across settings and populations addressing who is included in the target denominator population, who is excluded, who is included in the numerator population, and time windows for measurement and vaccinations.

Numerator: The numerator is the number of residents in the denominator who meet any of the following criteria for the most recently completed influenza season (the numerator components will be computed and reported separately): (1) those who received the influenza vaccine during the most recent influenza season, either in the facility or outside the facility; (2) the number who were offered and declined the influenza vaccine; or (3) the number who were ineligible due to contraindication(s) (i.e., anaphylactic hypersensitivity to eggs or other components of the vaccine, history of Guillain-Barré Syndrome within 6 weeks after a previous influenza vaccination, or bone marrow transplant within the past 6 months).

Time Window: the annual influenza season as defined by the Centers for Disease Control and Prevention (CDC).

Numerator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to to 100 days. Short-stay residents are included in the numerator if they meet any of the following criteria for the most recently completed influenza season: (1) received the influenza vaccine during the most recent influenza season, either in the facility (O250.A=1) or outside the facility (O0250.C=2); or (2) were offered and declined the influenza vaccine (O0250.C=4); or (3) were ineligible due to contraindication(s) (O0250.C=3). Included in the numerator are short-stay residents who meet the criteria on the target MDS 3.0 assessment (which may be an OBRA admission [A0310.A=01], PPS [A0310.B=1,2,3,4,5,6,7], or discharge assessment [A0310.F=10,11] during the influenza reporting period as defined by the Centers for Disease Control and Prevention.

Denominator: The denominator consists of all residents in the short-stay seasonal influenza vaccination sample with a target MDS 3.0 assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS, or discharge assessment) during the vaccination reporting period. This measure is based on the NQF's National Voluntary Standards for Influenza and Pneumococcal Immunizations. The NQF standard includes resident refusal and ineligibility in both the denominator and the numerator. This is a change from the currently used nursing facility quality measure.

Time Window: the annual influenza season as defined by the Centers for Disease Control and Prevention (CDC).

NQF #680: PERCENT OF NURSING HOME RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE SEASONAL INFLUENZA VACCINE (SHORT STAY) *(continued)*

Denominator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. The short-stay seasonal influenza vaccination sample includes residents meeting any of the following conditions: (1) the resident has an OBRA admission assessment (A0310.A=01) or PPS assessment (A0310.B=1,2,3,4,5,6,7) with an entry date (A1600) during the influenza season; or (2) the resident has a discharge assessment (A0310.F-10 or 11) with a discharge date (A2000) during the influenza season and an entry date (A1600) before or equal to 100 days.

Exclusions: Residents are excluded from the denominator if they were not in the facility (item O0250.C=1) during the annual influenza season (as defined by the Centers for Disease Control and Prevention). Facilities with fewer than 20 residents are excluded from public reporting due to small sample size.

Risk Adjustment: N/A

NQF #681: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE SEASONAL INFLUENZA VACCINE (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from the MDS 3.0 assessment of long-stay nursing facility residents and reports the percentage of all long-stay residents who were assessed and appropriately given the seasonal influenza vaccine during the influenza season. The measure reports on the percentage of residents who were assessed and received the seasonal influenza vaccine (MDS items O0250A and O250C) on the target MDS assessment (which may be an annual, quarterly or significant change or correction assessment).

Long-stay residents are those residents who have been in the nursing facility at least 100 days. The measure is restricted to the population with long-term care needs and does not include the short-stay population who are discharged within 100 days of admission. This specification of the proposed measure mirrors the harmonized measure endorsed by the National Quality Forum (Measure number 0432: Influenza Vaccination of Nursing Home/Skilled Nursing Facility Residents.) The NQF standard specifications were developed to provide a uniform approach to measurement across settings and populations. The measure harmonizes who is included in the target denominator population, who is excluded, who is included in the numerator population, and time windows for measurement and vaccinations.

Numerator: The numerator is the number of long-stay residents in the facility with an MDS OBRA admission, annual, quarterly, significant change, correction, or discharge assessment who meet any of the any of the following criteria for the most recently completed influenza season (the numerator components will be computed and reported separately): (1) those who received the influenza vaccine during the most recent influenza season, either in the facility or outside the facility, (2) the number who were offered and declined the influenza vaccine, or (3) the number who were ineligible due to contraindication(s) (i.e., anaphylactic hypersensitivity to eggs or other components of the vaccine, history of Guillain-Barré Syndrome within 6 weeks after a previous influenza vaccination, or bone marrow transplant within the past 6 months).

Time Window: annual influenza season as defined by the Centers for Disease Control and Prevention (CDC).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are included in the numerator if they meet any of the following criteria for the most recently completed influenza season: (1) received the influenza vaccine during the most recent influenza season, either in the facility (item O0250.A=1) or outside the facility (item O0250.C=2); or (2) were offered and declined the influenza vaccine (item O0250.C=4); or (3) were ineligible due to contraindication(s) (item O0250.C=3). Included in the numerator are residents who meet the criteria on the most recent OBRA MDS 3.0 assessment (A0310.A=01,02,03,04,05,06) or discharge assessment (A0310.F=10,11) during the influenza reporting period as defined by the Centers for Disease Control and Prevention.

Denominator: The denominator consists of all residents in the long-stay sample with a MDS 3.0 assessment (which may be an OBRA admission, annual, quarterly, significant change, significant correction or discharge assessment) during the vaccination reporting period defined as October 1 through June 30. This measure is based on the NQF's National Voluntary Standards for Influenza and Pneumococcal Immunizations. The NQF standard includes resident refusal and ineligibility in both the denominator and the numerator. This is a change from the currently used nursing home quality measure.

Time Window: annual influenza season as defined by the Centers for Disease Control and Prevention (CDC).

NQF #681: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE SEASONAL INFLUENZA VACCINE (LONG STAY) *(continued)*

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The long-stay influenza vaccination sample includes residents meeting any of the following three conditions during the influenza season: (1) the resident has an MDS 3.0 OBRA assessment (A0310.A=01,02,03,04,05,06) with assessment reference date (item A2300) during the influenza season; or (2) the resident has a discharge assessment (A0310.F=10,11) with discharge date (item A2000) during the influenza season. The preceding MDS assessment is a OBRA assessment (A0310.A=01,02,03,04,05,06) with assessment reference date (item A2300) before October 1 and the discharge date (item A2000) minus the assessment reference date (item A2300) is 100 days or less; or (3) the resident has a discharge assessment "prior to completing the initial assessment" (item A0310.A=99). The start of this stay is the later of the admission date (item A1600) from the discharge tracking form or the 13th day prior to the discharge date (item A2000 date minus 13 days). Either the start date or the discharge date (item A2300) is within the influenza season.

Exclusions: Residents are excluded from the denominator if they were not in the facility (item O0250.C=1) during the annual influenza season (as defined by the Centers for Disease Control and Prevention). Facilities with fewer than 20 residents are excluded from public reporting due to small sample size.

Risk Adjustment: N/A

NQF #682: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE PNEUMOCOCCAL VACCINE (SHORT STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from MDS 3.0 assessments of nursing facility residents. The measure reports the percentage of short-stay nursing facility residents who were assessed and appropriately given the Pneumococcal Vaccine (PPV) as reported on the target MDS 3.0 assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS or discharge assessment) during the 12-month reporting period. The proposed measure is harmonized with the NQF's quality measure on Pneumococcal Immunizations. (1)

Description: (continued)

Short-stay residents are those residents who are discharged within the first 100 days of the stay. The measure is restricted to the population that has short-term needs and does not include the population of residents with stays longer than 100 days. A separate quality measure has been submitted for the long-stay population.

The NQF standard specifications were harmonized to achieve a uniform approach to measurement across settings and populations addressing who is included in or excluded from the target denominator population, who is included in the numerator population, and the time windows.

The NQF standardized specifications differ from the currently reported measure in a several ways. It is important to note that, for some residents, a single vaccination is sufficient and the vaccination would be considered up to date; for others (those who are immunocompromised or older than 65 but the first vaccine was administered more than 5 years ago when the resident was younger than 65 years of age), a second dose would be needed to qualify as vaccination up to date. Although the guidelines recommend a second dose in these circumstances, the NQF Committee believed that adding that requirement would make measurement too complex for the amount of benefit gained. Also, given the importance of revaccination among older adults, focusing on up-to-date status, rather than ever having received the vaccine, is of critical importance.

1. National Quality Forum. National voluntary consensus standards for influenza and pneumococcal immunizations. December 2008. Available from **http://www.qualityforum.org/Publications/2008/12/National_Voluntary_Consensus_Standards_for_Influenza_and_Pneumococcal_Immunizations.aspx**.
2. ACIP. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR. Recomm Rep. 1997;46(RR-8):1-24.

Numerator: The numerator will be harmonized with NQF-endorsed measures. Residents are counted if they are short-stay residents defined as residents whose length of stay less than or equal to 100 days. Residents are counted if they meet any of the following criteria on the most recent MDS 3.0 assessment which may be a an OBRA Admission (30310.A=01), 5-day PPS (30310.B=01, 02, 03, 04, 05, 06, 07) or discharge assessment during (A0310.F=10, 11) during the 12 month reporting period. The following numerator components will be computed and reported separately:

1. Up-to-date vaccine status (O0300.A=1)
2. Ineligible due to medical contraindications (O0300.B=1)
3. Offered and declined vaccine (O0300.B=2)

Time Window: This time window is the selected 12-month reporting period.

Numerator Details: Residents are counted if they are short-stay residents, defined as residents whose length of stay is less than or equal to 100 days. Short-stay residents are counted if they meet any of the following criteria on the most recent MDS 3.0 assessment (which may be an OBRA admission (A0310.A=01), 5-day PPS (A0310.B=01, 02, 03, 04, 05, 06, 07), or discharge (A0310.F=10, 11) during the 12- month reporting period: (1) have and up-to-date PPV status (item O0300A=1); or (2) were offered and declined the vaccine (item O0300B- 2); or (3) were ineligible due to medical contraindication(s) (i.e. anaphylactic hypersensitivity to components of the vaccine; bone marrow transplant within the past 12 months; or receiving a course of chemotherapy within the past two weeks) (item O0300B=1).

NQF #682: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE PNEUMOCOCCAL VACCINE (SHORT STAY) *(continued)*

Denominator: The denominator consists of all short-stay residents in the pneumococcal vaccination sample with a MDS 3.0 assessment (which may be an OBRA admission, 5-day PPS, 14-day PPS, 30-day PPS, 60-day PPS, 90-day PPS or discharge assessment) within the 12-month period.

Time Window: This time window is the selected 12-month reporting period.

Denominator Details: Short-stay residents are defined as residents whose length of stay is less than or equal to100 days. The short-stay pneumococcal vaccination sample includes residents who have (1) a Prospective Payment System (PPS) MDS 3.0 assessment (item A0310.B=1,2,3,4,5,6,7) with assessment reference date (item A2300) during the 12-month target period; or (2) a discharge MDS 3.0 assessment (item A0310.F=10,11) with discharge date (item A2000) during the 12-month target period AND the preceding MDS assessment is a PPS MDS 3.0 assessment (item A0310. B=1,2,3,4, 5,6 7) with assessment reference date (item A2300) before the target period and the discharge date (item A2000) minus the assessment reference date (item A2300) is 45 days or less.

Exclusions: There are no resident level exclusions. Only facilities with fewer than 20 residents are excluded from public reporting due to small sample size.

Risk Adjustment: N/A

NQF #683: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE PNEUMOCOCCAL VACCINE (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from MDS 3.0 assessments of long-stay nursing facility residents. The measure reports the percentage of all long-stay residents who were assessed and appropriately given the Pneumococcal Vaccination (PPV) as reported on the target MDS assessment (which may be an admission, annual, quarterly, significant change or correction assessment) during the 12-month reporting period. This proposed measure is harmonized with NQF's quality measure on Pneumococcal Immunizations. (1) The MDS 3.0 definitions have been changed to conform to the NQF standard. The NQF used current guidelines from the Advisory Committee on Immunization Practices (ACIP) and others to guide decisions on all parameters for the harmonized measures. (2-10) The recently updated ACIP guidelines remain unchanged relative to their recommendations for pneumonia vaccinations. (12) The NQF standard specifications were harmonized to achieve a uniform approach to measurement across settings and populations, addressing who is included or excluded in the target denominator population, who is included in the numerator population, and time windows for measurement and vaccinations.

Long-stay residents are those residents who have been in the nursing home facility for at least 100 days. The measure is restricted to the population with long-term care needs and does not include the short-stay population who are discharged within 100 days of admission.

The NQF standardized specifications differ from the currently reported measure in several ways. It is important to note that, for some residents, a single vaccination is sufficient and the vaccination would be considered up to date; for others (those who are immunocompromised or older than 65, but the first vaccine was administered more than 5 years ago when the resident was younger than 65 years of age), a second dose would be needed to qualify a vaccination as up to date. Although the guidelines recommend a second dose in these circumstances, the NQF Committee believed that adding that requirement would make measurement too complex for the amount of benefit gained, especially given the complexity of determining "up-to-date status". (1)

1. National Quality Forum. National voluntary consensus standards for influenza and pneumococcal immunizations. December 2008. Available from **http://www.qualityforum.org/Publications/2008/12/National_Voluntary_Consensus_Standards_for_Influenza_and_Pneumococcal_Immunizations.aspx**
2. ACIP. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR. Recomm Rep. 1997;46(RR-8):1-24.

Numerator: The numerator will be harmonized with NQF-endorsed measures. Residents are counted if they are short-stay residents defined as residents whose length of stay less than or greater 100 days. Residents are counts if they meet any of the following criteria on the most recent MDS 3.0 assessment which may be a an OBRA Admission (30310A=01), 5-day PPS (30310B=01, 02, 03, 04, 05, 06, 07) or discharge assessment during (A0310F=10, 11) during the 12 month reporting period. The following numerator components will be computed and reported separately:

1. Up-to-date vaccine status (O0300.A=1)
2. Ineligible due to medical contraindications (O0300.B=1)
3. Offered and declined vaccine (O0300.B=2)

Time Window: This time window is the selected 12-month reporting period.

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Long-stay residents are counted if they meet any of the following criteria on the target MDS 3.0 assessment (A0310.A=01,02,03,04,05,06) or discharge assessment (A0310.F=10,11) during the 12-month reporting period include those who (1) have an up to date PPV status (item O0300.A=1); or (2) were offered and declined the vaccine (item O0300.B=2); or (3) were ineligible due to medical contraindication(s) (i.e., anaphylactic hypersensitivity to components of the vaccine, bone marrow transplant within the past 12 months, or receiving a course of chemotherapy within the past 2 weeks) (item O0300B=1).

NQF #683: PERCENT OF RESIDENTS WHO WERE ASSESSED AND APPROPRIATELY GIVEN THE PNEUMOCOCCAL VACCINE (LONG STAY) *(continued)*

Denominator: The denominator consists of all long-stay residents in the pneumococcal vaccination sample with an MDS 3.0 OBRA admission assessment (which may be an annual, quarterly, significant change or significant correction) or discharge assessment during the 12-month reporting period. This measure is based on the NQF's National Voluntary Standards for Influenza and Pneumococcal Immunizations, which include resident refusal and ineligibility in the numerator and denominator. This is a change from the currently used nursing home quality measure.

Time Window: This time window is the selected 12-month reporting period.

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The denominator includes all long-stay residents who meet the following criteria: (1) the most recent MDS 3.0 assessment is an OBRA assessment (item A0310.A=01,02,03,04,05,06) with assessment reference date (item A2300 (during the 12-month target period; or (2) the most recent assessment is a discharge assessment (item A0310.F=10,11) with discharge date (item A2000) during the 12-month target period AND the prior MDS record is an OBRA assessment (item A0310.A=01,02,03,04,05,06) with assessment reference date (item A2300) before the target period and the discharge date (item A2000) minus the assessment reference date (item A2300) is 100 days or less: or (3) the most recent assessment is a discharge assessment prior to completing the initial assessment (item A0310.A=99). The start date of this stay is the later of the admission date (item A1600) from the discharge assessment or the 13th day prior to the discharge date (item A2000 minus 13 days). Either the start date or the discharge date is wtihin the 12-month target period.

Exclusions: There are no resident level exclusions. Only facilities with fewer than 30 residents are excluded from public reporting due to small sample size.

Risk Adjustment: N/A

NQF #684: PERCENT OF RESIDENTS WITH A URINARY TRACT INFECTION (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM on Urinary Tract Infections in the nursing facility populations. It is based on MDS 3.0 data and measures the percentage of long-stay residents who have a urinary tract infection on the target MDS assessment (which may be an annual, quarterly, or significant change or correction assessment). In order to address seasonal variation, the proposed measure uses a 6-month average for the facility. Long-stay nursing facility residents are those whose stay in the facility is over 100 days. The measure is limited to the long-stay population because short-stay residents (those who are discharged within 100 days of admission) may have developed their urinary tract infections in the hospital rather than the nursing facility.

Numerator: The numerator is the number of long-stay nursing facility residents who have an annual, quarterly, or significant change or correction assessment during the selected time window with reported urinary tract infections in the last 30 days (Item I2300 of the MDS 3.0 is checked).

Time Window: The numerator is the number of MDS annual, quaterly, significant change or correction assessments that report urinary tract infections over the last two quarters divided by 2. The proposed measure is computed over two quarters to reduce the effect of seasonal variation.

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. Residents are counted if item I2300 of the MDS 3.0, urinary tract infection within the last 30 days, is checked. This section of the MDS 3.0, "Active Diagnoses," asks that all applicable diagnoses be checked. The proposed measure uses all non-admission MDS OBRA assessments (A0310.A=02,03,04,05,06) over the last 6-month period to adjust for seasonal variation. The numerator is the number of non-admission MDS OBRA assessments (which may be an annual, quarterly, significant change or significant correction assessment) that report urinary tract infections over the last two quarters divided by 2. The measure is computed over two quarters to reduce the effect of seasonal variation.

Denominator: All MDS target assessments (which may be an annual, quarterly, significant change or significant correction assessment) over the last two quarters. The total number of assessments is then divided by two to report an average quarter count.

Time Window: All assessments of long-stay nursing home residents over the last two-quarter period, with the exception of admission assessments, divided by 2. The measure is computed over two quarters to reduce the effect of seasonal variation.

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The denominator includes non-admission OBRA assessments (A0310.A=02,03,04,05,06) except those with exclusions over the last two-quarter period divided by 2. Residents with only OBRA admission assessments are excluded because they may have developed their urinary tract infections in the hospital rather than the nursing home. An OBRA admission assessment is identified if item A0310.A=01 (admission assessment).

Exclusions: There are two exclusions for the denominator. First, a resident is excluded from the denominator if the selected MDS OBRA assessment was conducted within 14 days of admission (an "admission assessment"). An OBRA admission assessment is identified if item A0310A=01 (admission assessment) is checked. Assessments of residents with only an admission assessment are excluded because these residents may have developed their urinary tract infections in the hospital rather than the nursing home. It would be unfair to hold the nursing facility accountable for care received in the hospital.

Risk Adjustment: N/A

NQF #685: PERCENT OF LOW RISK RESIDENTS WHO LOSE CONTROL OF THEIR BOWEL OR BLADDER (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM on bowel and bladder control. It is based on data from Minimum Data Set (MDS) 3.0 assessments of long-stay nursing facility residents (those whose stay is longer than 100 days). This measure reports the percent of long-stay residents who are frequently or almost always bladder or bowel incontinent as indicated on the target MDS assessment (which may be an annual, quarterly, significant change or significant correction assessment) during the selected quarter (3-month period).

The proposed measure is stratified into high and low risk groups; only the low risk group's (e.g., residents whose mobility and cognition are not impaired) percentage is calculated and included as a publicly-reported quality measure.

Numerator: The numerator is the number of long-stay residents who have been assessed with an annual, quarterly, significant change or significant correction MDS 3.0 assessment during the selected time window and who are frequently or almost always incontinent of bowel or bladder.

Time Window: Numerator data come from the MDS 3.0 annual, quarterly, significant change or significant correction assessments during each quarter (3-month period).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are counted if they are incontinent of bowel (H0300=2 or 3) or bladder (H0400=2 or 3). H0300=2=Frequently incontinent (7 or more episodes of bowel incontinence, but at least one episode of continent voiding continent bowel movement). H0300=3=Always incontinent (no episodes of continent voiding). H0400=2=requently incontinent (2 or more episodes of bowel incontinence, but at least one continent bowel movement). H0400=3=Always incontinent (no episodes of continent bowel movements).

Denominator: The denominator is the total of all long-stay residents in the nursing facility who have been assessed with an annual, quarterly, significant change or significant correction MDS assessment during the quarter and who do not meet the exclusion criteria.

Time Window: Denominator data come from the MDS 3.0 annual, quarterly, significant change or significant correction assessments during each quarter (3-month period).

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents who had an annual, quarterly, significant change or significant correction MDS 3.0 assessment (A0310.A=02, 03, 04, 05 or 06) during the selected quarter.

Exclusions: A resident is excluded from the denominator if the selected MDS 3.0 assessment was conducted within 14 days of admission (A0310A=01) or if there is missing data in the response fields for the relevant questions in the MDS. Other exclusions include residents with severe cognitive impairment, total dependence in mobility, comatose, or with an indwelling catheter.

Facilities are excluded if they have fewer than 30 residents.

Risk Adjustment: N/A

NQF #686: PERCENT OF RESIDENTS WHO HAVE/HAD A CATHETER INSERTED AND LEFT IN THEIR BLADDER (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM on catheter insertions. It is based on data from Minimum Data Set (MDS) 3.0 assessments of long-stay nursing home residents (those whose stay is longer than 100 days). This measure captures the percentage of long-stay residents who have had an indwelling catheter in the last 7days noted on the most recent MDS 3.0 assessment, which may be annual, quarterly, significant change or significant correction during the selected quarter (3-month period).

Long-stay residents are those residents who have been in nursing care at least 100 days. The measure is restricted to this population, which has long-term care needs, rather than the short stay population who are discharged within 100 days of admission.

Numerator: The numerator statement refers to a catheter that was inserted and left in the bladder by the facility during the assessment period.

During MDS 3.0 field testing, look-back periods were highlighted as a significant issue across the assessment tool. For clinical assessment items, longer look-back periods served to increase the amount of record review, increasing assessment burden and leading to more opportunities for error. During national testing of look-back periods for the MDS 3.0 proposed items, the 7-day look-back period performed well and likely contributed to the improved reliability of this item.(1)

1. Saliba D, Buchanan J. Development and Validation of a Revised Nursing Home Assessment Tool: MDS 3.0. Contract No. 500-00-0027/Task Order #2. Santa Monica, CA: Rand Corporation,
   Apr 2008. Available from **http://www.cms.hhs.gov/NursingHomeQualityInits/Downloads/MDS30FinalReport.pdf**.

The numerator is the number of long-stay residents who have/had a urinary catheter in the last 7 days (H0100A is checked).

Time Window: Numerator data come from MDS 3.0 annual, quarterly, significant change or significant correction assessment conducted during each quarter (3-month period).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. The numerator includes residents who have indwelling catheters (H0100A is checked) on the most recent MDS 3.0 assessment (which may be an annual, quarterly, significant change or significant correction assessment). Exclusions are assessments where data for the urinary catheter item (H0100) is missing. Also, residents with diagnoses of neurogenic bladder (item I1550) or obstructive uropathy (item I1650) are excluded because these are conditions in which the person is unable to empty the bladder voluntarily or effectively, putting the person at risk or complications, such as overflow incontinence, recurrent infection, vesicoureteral reflux, or autonomic dysflexia. 2a.8. (denominator details). Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents who have had an annual, quarterly, significant change or significant correction MDS 3.0 assessment (A0130.A=02,03,04,05 or 06) during the selected quarter, except for those who meet the exclusion criteria or have missing data in the responses to the relevant items in the MDS.

Denominator: The denominator is the total of all long-stay residents in the nursing home who have been assessed with an annual, quarterly, significant change or significant correction MDS 3.0 assessment during the quarter (3-month period) and who do not meet the exclusion criteria.

Time Window: Denominator data come from MDS 3.0 annual, quarterly, significant change or significant correction assessment conducted during each quarter (3-month period).

NQF #686: PERCENT OF RESIDENTS WHO HAVE/HAD A CATHETER INSERTED AND LEFT IN THEIR BLADDER (LONG STAY) (*continued*)

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents who have had an annual, quarterly, significant change or significant correction MDS 3.0 assessment (A0130.A=02,03,04,05 or 06) during the selected quarter, except for those who meet the exclusion criteria or have missing data in the responses to the relevant items in the MDS.

Exclusions: A resident is excluded from the denominator if the MDS assessment was conducted within 14 days of admission or if there is missing data in the responses to the relevant questions in the MDS assessment. Other exclusions include residents with neurogenic bladder or obstructive uropathy. Residents with diagnoses of neurogenic bladder (item I1550) or obstructive uropathy (item I1650) are excluded because these are conditions in which the person is unable to empty the bladder voluntarily or effectively, putting the person at risk of complications, such as overflow incontinence, recurrent infection, vesicoureteral reflux, or autonomic dysreflexia.

Facilities are excluded from public reporting if they have fewer than 30 residents due to small sample size.

Risk Adjustment: Resident-level limited covariate risk adjustment for residents who are bowel incontinent on prior MDS (item H0400=2 or 3), or had pressure sores at stage 2, 3, or 4 on prior MDS (M0300B1>0 or M0300C1>0 or M0300D1>0).

NQF #687: PERCENT OF RESIDENTS WHO WERE PHYSICALLY RESTRAINED (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: The measure is based on data from the MDS 3.0 assessment of long-stay nursing facility residents and reports the percentage of all long-stay residents who were physically restrained. The measure reports the percentage of all long-stay residents in nursing facilities with an annual, quarterly, significant change, or significant correction MDS 3.0 assessment during the selected quarter (3-month period) who were physically restrained daily during the 7 days prior to the MDS assessment (which may be annual, quarterly, significant change, or significant correction MDS 3.0 assessment).

Numerator: The numerator is the number of long-stay residents (those who have been in the facility for over 100 days) who have been assessed with annual, quarterly, significant change or significant correction MDS 3.0 assessments during the selected time window and who have experienced restraint usage during the 7 days prior to the assessment, as indicated by MDS 3.0, Section P, Item 100, subitems b (P0100B –Trunk restraint used in bed), c (P0100C–Limb restraint used in bed), e (P0100E–Trunk restraint used in chair or out of bed), f (P0100F–limb restraints used in chair or out of bed), or g (P0100G–Chair prevents rising).

Time Window: Numerator data come from MDS 3.0 annual, quarterly, significant change or significant correction assessments conducted during each quarter (3-month period).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are counted if any of the following items are coded as "2", meaning that the restraint was used daily during the 7 days prior to the assessment: P0100.B-Trunk restraint used in bed, P0100.C-Limb restraint used in bed, P0100.E-Trunk restraint used in chair or out of bed, P0100.F-Limb restraint used in chair or out of bed, or P0100.G-Chair prevents rising.

Denominator: The denominator is the total of all long-stay residents in the nursing facility who have received an annual, quarterly, significant change or significant correction MDS 3.0 assessment during the quarter and who do not meet the exclusion criteria.

Time Window: Denominator data come from MDS 3.0 annual, quarterly, significant change or significant correction assessments conducted during each quarter (3-month period).

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The population includes all long-stay residents who had an annual, quarterly, significant change, or significant correction MDS 3.0 assessment (A0310.A=02, 03, 04, 05 or 06) during the selected quarter.

Exclusions: An MDS assessment may, on occasion, have incomplete data due to human error in collecting or recording the data. Those records are excluded from the quality calculation because it is not possible to perform the needed calculations when data are missing.

A resident is excluded from the denominator if the selected MDS 3.0 assessment was conducted within 14 days of admission or if there is missing data in the responses to the relevant questions in the MDS.

Long-stay facilities are excluded from public reporting if their samples include fewer than 30 residents.

Risk Adjustment: N/A

NQF #688: PERCENT OF RESIDENTS WHOSE NEED FOR HELP WITH ACTIVITIES OF DAILY LIVING HAS INCREASED (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from the MDS 3.0 assessment of long-stay nursing facility residents and reports the percentage of all long-stay residents in a nursing facility whose need for help with late-loss Activities of Daily Living (ADLs), as reported in the target quarter's assessment, increased when compared with a previous assessment. The four late-loss ADLs are: bed mobility, transferring, eating, and toileting. This measure is calculated by comparing the change in each item between the target MDS assessment (which may be an annual, quarterly or significant change or correction assessment) and a previous assessment (which may be an admission, annual, quarterly or significant change or correction assessment).

Numerator: The numerator is the number of long-stay residents who have an MDS assessment (which may be an annual, quarterly, significant change, or significant correction) reporting a defined amount of decline when compared with a previous assessment (which may be an admission, annual, quarterly, significant change, or significant correction MDS 3.0 assessment). This would indicate an increase, when compared with a previous assessment, in the resident's need for help with a late-loss item as indicated by a higher score (coding convention is such that a higher score indicates the need for more help with a task). The need for increased assistance (suggesting decline in function) is identified if the score for at least one late-loss ADL item increases by two or more points or if the score for two or more of the late-loss ADLs items increase by one point; late-loss ADL items are bed mobility, transferring, eating, and toileting.

Time Window: The numerator data are from the target quarter MDS 3.0 assessment (which may be an annual, quarterly, significant change, or significant correction assessment) and refers to the ADL decline reported since a previous assessment (which may be an admission, annual, quarterly, significant change, or significant correction MDS 3.0 assessment).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are counted if they reported having an increase in their need for help with late-loss ADLs. An increase is defined as an increase in two or more coding points in one late-loss ADL item or a one point increase in coding points in two or more late-loss ADL items. The comparison is made between the target quarter´s assessment (which may be an annual, quarterly or significant change or significant correction MDS 3.0 assessment) and the previous assessment (which may be an annual, quarterly or significant correction MDS 3.0 assessment). Higher score on an item indicates greater dependency. The ADL items for this measure are: 1. Bed mobility-G0110A1 2. Transferring-G0110B1 3. Eating-G0110H1 4. Toileting-G011011.

Note. Values of 7 (occurred only once or twice) or 8 (did not occur) are recoded to be a value of 4.

Denominator: The denominator includes all long-stay residents who received an annual, quarterly or significant change or correction MDS 3.0 assessment during the quarter and who did not meet the exclusion criteria.

Time Window: Denominator data come from MDS 3.0 annual, quarterly or significant change or correction assessment conducted during each quarter (3-month period).

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The target population includes all long-stay residents who had an annual, quarterly, significant change, significant correction, or discharge assessment during the selected quarter.

NQF #688: PERCENT OF RESIDENTS WHOSE NEED FOR HELP WITH ACTIVITIES OF DAILY LIVING HAS INCREASED (LONG STAY) *(continued)*

Exclusions: These are the two types of assessments that might be completed upon admission. OBRA regulations require a full assessment within 14 days of admission. Medicare SNF payments require a Prospective Payment System (PPS) assessment. Newly admitted residents (identified by having either of these two types of admission assessments) are not included in the denominator as this represents their baseline status, not whether they have declined since admission.

Denominator exclusion criteria include the following:

- an OBRA admission assessment is the target assessment,
- the resident is totally dependent in all four late-loss ADL items,
- the resident is comatose,
- the resident is receiving hospice care, or
- the resident does not meet the criteria for decline in late-loss ADLs (an increase by two or more points in one late-loss ADL, or increase of one point in two or more late-loss ADLs) based on the ADL data available, AND there is missing data on any of the four late-loss ADL items.

Long-stay facilities are excluded from public reporting if their sample includes fewer than 30 residents.

Risk Adjustment: N/A

NQF #689: PERCENT OF RESIDENTS WHO LOSE TOO MUCH WEIGHT (LONG STAY)

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure updates CMS' current QM on patients who lose too much weight. This measure captures the percentage of long-stay residents who had a weight loss of 5% or more in the last month or 10% or more in the last 6 months who were not on a physician-prescribed weight-loss regimen noted on an MDS assessment (which may be an annual, quarterly, significant change or significant correction MDS assessment) during the selected quarter (3-month period).

In order to address seasonal variation, the proposed measure uses a two-quarter average for the facility. Long-stay residents are those who have been in nursing care at least 100 days. The measure is restricted to this population, which has long-term care needs, rather than the short-stay population who are discharged within 100 days of admission.

Numerator: The numerator is the number of nursing home residents with an MDS assessments (which may be an annual, quarterly, significant change or significant correction MDS assessment) that indicate a weight loss of 5% or more of resident's body weight in the last 30 days or 10% or more in the last 6 months that is not a result of a physician-prescribed weight-loss regimen.

Time Window: Numerator data come from MDS assessment (which may be an annual, quarterly, significant change or significant correction assessment) conducted over the last two quarters to adjust for seasonal variation.

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. Residents are counted if a weight loss of 5% or more of their body weight in the last month or a weight loss of 10% or more of their body weight over the last 6 months who were not on a physician-prescribed weight-loss regimen. Nursing facility residents with this condition have K0300=2 (weight loss) checked on the MDS 3.0. The numerator counts the number of MDS assessments (which may be an annual, quarterly, significant change or significant correction assessments) that report too much weight loss over the last two quarters divided by two. The measure averages over two quarters to obtain a rate for a single quarter.

Denominator: The denominator uses MDS assessments (which may be an annual, quarterly, significant change or significant correction assessments), except for residents with only an admission (OBRA) assessment and residents for whom data on weight loss is missing. Residents with only an admission (OBRA) assessment are excluded because they have not been in the facility long enough to have had weight loss assessed or attributed to care in the facility.

Time Window: All assessments of nursing facility residents over the last two quarters, with the exception of admission assessments and assessments with missing data.

Denominator Details: Residents are counted if they are long-stay residents defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their day count reset to zero. The denominator consists of all assessments of long-stay residents over the last two quarters, except admission (OBRA) assessments and those for which data on weight loss are missing, divided by 2. Dividing by two creates an average for a single quarter. Residents who only have an admission (OBRA) assessment are excluded because the measure is a change score that cannot be calculated until the resident has been in the facility for at least a month. Admission (OBRA) assessments are conducted within 14 days of admission. Similarly, it is not possible to assess the weight-loss experience of residents for whom data are missing. An admission (OBRA) assessment is identified by the MDS 3.0 item A0310.A=01 (type of assessment).

Exclusions: An assessment is excluded from the denominator if the MDS assessment was conducted within 14 days of admission (OBRA) (A0310=01) or if there is missing data in the responses to K0300 (weight loss) of the MDS 3.0. Facilities with fewer than 30 residents are excluded from public reporting because of small sample size.

Risk Adjustment: N/A

NQF #690: PERCENT OF RESIDENTS WHO HAVE DEPRESSIVE SYMPTOMS (LONG STAY)*

Measure Steward: Centers for Medicare & Medicaid Services

Description: This measure is based on data from MDS 3.0 assessments of nursing home residents. Either a resident interview measure or a staff assessment measure will be reported. The preferred version is the resident interview measure. The resident interview measure will be used unless either there are three or more missing sub-items needed for calculation or the resident is rarely or never understood, in which cases the staff assessment measure will be calculated and used. These measures use those questions in MDS 3.0 that comprise the Patient Health Questionnaire (PHQ-9) depression instrument. The PHQ-9 is based on the diagnostic criteria for a major depressive disorder in the DSM-IV.

Numerator: Using the PHQ-9 items in the MDS 3.0, for the Resident Interview Measure (Item D0200), the numerator is based on the total sum severity score (D0300) on the most recent MDS assessment in the selected quarter (which may be an annual, quarterly, significant change, or significant correction assessment). The total severity score reflects resident responses to questions asking about the frequency of nine symptoms over the last 2 weeks, including interest, mood, energy, appetite, self-value, ability to concentrate, change in responsiveness, or patience. The Staff Assessment Measure (Item D0500) is similar, except the judgment is being made by observers rather than the residents themselves. The numerator is calculated by using data from item D0300, the total self-reported depression severity score. While the self-report data are preferred, if data from D0300 are incomplete or unavailable then the numerator will be calculated using data from item D0600.

Time Window: Numerator data are from the most recent MDS assessment which may be an annual, quarterly, significant change or significant correction assessment during the selected quarter (3-month period).

Numerator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. A resident can be eligible for inclusion in the numerator in one of two ways for the MDS 3.0, the Resident Mood Interview or Staff Assessment of Resident Mood. The score is 10 for either the Resident Mood Interview or Staff assessment of Resident Mood. A total score is calculated from Column 2, Symptom Frequency. The Staff Assessment of mood (items D0500) should be used if a long-stay resident is missing data for three or more of the subitems of data elements D0200 for the Resident Assessment AND has valid data for seven or more of subitems A through I of item D0500 for the Staff Assessment, as described below. When the Resident Mood Interview is conducted, the resident must have score of two or greater for either D0200A or D0200B AND a score of two or more for five of the following items D0200A-I. When the Staff Assessment for Resident Mood is necessary, the resident must have score of two or greater for either D0200A or D0200B AND a score of two or more for five of the following items D0200A-I.

Denominator: The denominator is the total number of all long-stay residents in the nursing facility who have received an MDS assessment (which may be an annual, quarterly, significant change or significant correction assessment) during the selected quarter (3-month period) and who do not meet the exclusion criteria.

Time Window: Denominator data are from the MDS 3.0 annual, quarterly, significant change or significant correction assessment during the selected quarter (3-month period).

NQF #690: PERCENT OF RESIDENTS WHO HAVE DEPRESSIVE SYMPTOMS (LONG STAY)* *(continued)*

Denominator Details: Residents are counted if they are long-stay residents, defined as residents whose length of stay is greater than 100 days. Residents who return to the nursing home following a hospital discharge will not have their stay reset to zero. The target population for the denominator is the total number of all long-stay residents in the nursing facility who have received an MDS assessment (which may be an annual, quarterly, significant change or significant correction assessment) during the selected quarter (3-month period) and who do not meet the exclusion criteria.

Exclusions: A long-stay resident is excluded from the denominator if the MDS assessment is an admission assessment (OBRA) or a 5-day PPS scheduled assessment, if the resident is comatose, or if there are too many missing data in the relevant section of the MDS. Facilities are excluded from public reporting if they have fewer than 30 residents.

Risk Adjustment: N/A

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #691: CONSUMER ASSESSMENT OF HEALTH PROVIDERS AND SYSTEMS (CAHPS®) NURSING HOME SURVEY: DISCHARGED RESIDENT INSTRUMENT*

Measure Steward: Agency for Healthcare Research and Quality

Description: The CAHPS® Nursing Home Survey: Discharged Resident Instrument is a mail survey instrument to gather information on the experience of short stay (5 to 90 days) residents recently discharged from nursing homes. This survey can be used in conjunction with the CAHPS Nursing Home Survey: Family Member Instrument and the Long Stay Resident Instrument. The survey instrument provides nursing home level scores on 4 global items. In addition, the survey provides nursing home level scores on summary measures valued by consumers; these summary measures or composites are currently being analyzed. The composites may include those valued by long stay residents: (1) Environment; (2) Care; (3) Communication & Respect; (4) Autonomy and (5) Activities.

Numerator: The following topics are measured for nursing homes from a resident's perspective:

Global Items:

Global Rating of care received from staff: sum of resident scores on 0 to 10 scale

Global Rating of special therapy care: sum of resident scores on 0 to 10 scale

Global Rating of overall nursing home: sum of resident scores on 0 to 10 scale

Global item whether respondent would recommend nursing home: sum of resident scores on item (see codebook for points assigned to each response category)

Composites: We expect some composites to be similar to the long stay resident instrument such as Environment, Care, and Communication & Respect. We are not sure if the Autonomy and Activities Composites will be relevant to short stay residents. Data analysis is currently being conducted.

Time Window: when resident was in nursing home.

Numerator Details: To be finalized for each composite and global item when analysis is completed

Denominator: The denominator is the total number of surveys for respondents that meet CAHPS completion standard (50% of key items answered) and any applicable screener.

Time Window: when resident was in nursing home

Denominator Details: To be finalized for each composite and global item when analysis is completed

Exclusions: All residents whose length of stay (LOS) in the facility is greater than 100 days from the date of admission. Residents who are discharged to a hospital with return anticipated will not have the 100 days count reset to zero when they return to the facility.

Risk Adjustment: We will use a similar methodology to that used for the Family Member survey found on pages 26-33 of the AIR Final Report. Variables to be used as case mix adjusters will be finalized when analysis is completed.

*This consensus standard was endorsed as **time limited**, which means that it meets the NQF-endorsed evaluation criteria with the exception of not having been adequately field tested. After 1 year the measure steward shall provide evidence and results from field testing to NQF for consideration, at which time NQF may choose to endorse the standard or remove endorsement.

NQF #692: CONSUMER ASSESSMENT OF HEALTH PROVIDERS AND SYSTEMS (CAHPS®) NURSING HOME SURVEY: LONG-STAY RESIDENT INSTRUMENT

Measure Steward: Agency for Healthcare Research and Quality

Description: The CAHPS® Nursing Home Survey: Long-Stay Resident Instrument is an in-person survey instrument to gather information on the experience of long stay (30+ days) residents currently in nursing homes. The Centers for Medicare & Medicaid Services requested development of this survey, and can be used in conjunction with the CAHPS Nursing Home Survey: Family Member Instrument and Discharged Resident Instrument. The survey instrument provides nursing home level scores on 5 topics valued by residents: (1) Environment; (2) Care; (3) Communication & Respect; (4) Autonomy and (5) Activities. In addition, the survey provides nursing home level scores on 3 global items.

Numerator: The following topics are measured for nursing homes from a resident's perspective:

Composite 1: Environment – sum of applicable resident scores on 8 survey items (see codebook for points assigned to each response category) related to aspects of environment in nursing home

Composite 2: Care - sum of applicable resident scores on 5 survey items

Composite 3: Communication and Respect- facility score is sum of applicable resident scores on 3 survey items

Composite 4: Autonomy - sum of applicable resident scores on 3 survey items

Composite 5: Activities – sum of applicable resident scores on 2 survey items

Global Items:

Global Rating of care received from staff: sum of resident scores on 0 to 10 scale

Global Rating of overall nursing home: sum of resident scores on 0 to 10 scale

Global item whether respondent would recommend nursing home: sum of resident scores on item (see codebook for points assigned to each response category)

Time Window: non-specific present – see 3a.6 for cognitive testing results for this time window decision.

Numerator Details: (Note: Question # is from final survey which may differ from pilot survey)

Composite 1: 8 survey items Q1, Q3, Q4, Q5, Q6, Q18, Q19, Q20

Composite 2: 5 survey items Q8, Q9, Q10, Q12, Q29

Composite 3: 3 survey items Q13, Q14, Q15

Composite 4: 3 survey items Q30, Q31, Q32

Composite 5: 2 survey items Q33, Q34

Global items: 3 survey items Q16, Q17, Q35

Denominator: The denominator is the total number of surveys for respondents that meet CAHPS completion standard and any applicable screener (discussed in details below).

Time Window: non-specific present – see 3a.6 for cognitive testing results for this time window decision.

NQF #692: CONSUMER ASSESSMENT OF HEALTH PROVIDERS AND SYSTEMS (CAHPS®) NURSING HOME SURVEY: LONG-STAY RESIDENT INSTRUMENT *(continued)*

Denominator Details: Composite 1: Environment

the denominator is the total number of completed surveys for 7 out of 8 questions in this composite excluding Q3, where it is the number of surveys completed by all those who responded "yes" to screener Q2

Composite 2: Care

the denominator is the total number of completed surveys for 2 out of 5 questions in this composite excluding these questions:

Q8: the number of surveys completed by all those who responded "yes" to screener Q7

Q12: the number of surveys completed by all those who responded "yes" to screener Q11

Q29: the number of surveys completed by all those who responded "yes" to screener Q28

Composite 3: Communication and Respect

the denominator is the total number of completed surveys for all 3 questions

Composite 4: Autonomy: the denominator is the total number of completed surveys for all 3 questions in this composite

Composite 4: Activities: the denominator is the total number of completed surveys for the 2 questions in this composite

Global Items: for all 3 global items the denominator is the total number of completed surveys.

Exclusions: We exclude residents who are under age 18, comatose, severely impaired in cognitive skills for daily decision making, those who cannot answer 3 questions in a row; conscious but unresponsive to interviewer and unable to speak English for survey. All residents whose length of stay (LOS) in the facility is equal to or less than 100 days from the date of admission will also be excluded. Residents who are discharged to a hospital with return anticipated will not have the 100 days count reset to zero when they return to the facility.

Risk Adjustment: N/A

NQF #693: CONSUMER ASSESSMENT OF HEALTH PROVIDERS AND SYSTEMS (CAHPS®) NURSING HOME SURVEY: FAMILY MEMBER INSTRUMENT

Measure Steward: Agency for Healthcare Research and Quality (AHRQ/DHHS)

Description: The CAHPS Nursing Home Survey: Family Member Instrument is a mail survey instrument to gather information on the experiences of family members of long stay (30+ days) residents currently in nursing homes. The Centers for Medicare & Medicaid Services requested development of this questionnaire, which is intended to complement the CAHPS Nursing Home Survey: Long-Stay Resident Instrument and the Discharged resident Instrument. The Family Member Instrument asks respondents to report on their own experiences (not the resident's) with the nursing home and their perceptions of the quality of care provided to a family member living in a nursing home. The survey instrument provides nursing home level scores on 4 topics valued by patients and families: (1) Meeting Basic Needs: Help with Eating, Drinking, and Toileting; (2) Nurses/Aides' Kindness/ Respect Towards Resident; (3) Nursing Home Provides Information/Encourages Respondent Involvement; and (4) Nursing Home Staffing, Care of Belongings, and Cleanliness. In addition, the survey provides nursing home scores on 3 global items including an overall Rating of Care.

Numerator: The following topics are measured for nursing homes from a family members perspective:

Composite 1: Meeting Basic Needs–sum of applicable family member scores on 3 survey items (see codebook for points assigned to each response category) related to basic activities of daily living needs (help with eating, drinking, and toileting)

Composite 2: Nurses and Aides' Kindness and Respect towards Resident - sum of applicable family member scores on 5 survey items

Composite 3: How Well the Nursing Home Provides Information and Encourages Family Involvement - sum of applicable family member scores on 6 survey items

Composite 4: Nursing Home Staffing, Care of Belongings, and Cleanliness - sum of applicable family member scores on 7 survey items

Global Items:

Global Rating of care item: sum of family member scores on 0 to 10 scale

Global item whether ever unhappy with nursing home care: sum of family member scores on item (see codebook for points assigned to each response category)

Global item whether respondent would recommend nursing home: sum of family member scores on item (see codebook for points assigned to each response category).

Time Window: last six months

Numerator Details:

Composite 1: 3 survey items Q17, Q19, Q21

Composite 2: 5 survey items Q12, Q13, Q14, Q15, Q24

Composite 3: 6 survey items Q26, Q27, Q28, Q35, Q37, Q42

Composite 4: 7 survey items Q11, Q22, Q29, Q30, Q31, Q32, Q33, Q40

Global items: 3 survey items Q34, Q38, Q39

NQF #693: CONSUMER ASSESSMENT OF HEALTH PROVIDERS AND SYSTEMS (CAHPS®) NURSING HOME SURVEY: FAMILY MEMBER INSTRUMENT *(continued)*

Denominator: The denominator is the total number of surveys for respondents that meet CAHPS completion standard and any applicable screener (discussed in details below).

Time Window: last six months

Denominator Details: Composite 1: Meeting Basic Needs:

Q17: the number of surveys completed by all those who responded "yes" to screener Q16

Q19: the number of surveys completed by all those who responded "yes" to screener Q18

Q21: the number of surveys completed by all those who responded "yes" to screener Q20

Composite 2: Nurses and Aides' Kindness and Respect towards Resident:

the denominator is the total number of completed surveys for 4 out of 5 questions in this composite excluding Q24; for Q24, its denominator is the number of surveys completed by all those who responded "yes" to screener Q23

Composite 3: How Well the Nursing Home Provides Information and Encourages Family Involvement:

the denominator is the total number of completed surveys for 2 out of 6 questions (Q27 and Q28) in this composite excluding these questions:

Q26: the number of surveys completed by all those who responded "yes" to screener Q25

Q35: the number of surveys completed by all those who responded "yes" to screener Q34

Q37: the number of surveys completed by all those who responded "yes" to screener Q36

Q42: the number of surveys completed by all those who responded "yes" to screener Q41

Composite 4: Nursing Home Staffing, Care of Belongings, and Cleanliness:

the denominator is the total number of completed surveys for 6 out of 7 questions in this composite excluding Q33; for Q33, its denominator is the number of surveys completed by all those who responded "yes" to screener Q32

Global Items: for all 3 global items the denominator is the total number of completed surveys.

Exclusions: We exclude respondents who are under age 18, those who did not visit the nursing home resident at least once in 6 months, those whose resident was discharged, and those with a resident who had been in the nursing home for equal to or less than 100 days. In addition, screener questions may reduce the denominator size – those questions with screeners are noted in 2a.8 above.

Risk Adjustment: The CAHPS team recommends four items to be case-mix adjusters for the CAHPS Nursing Home Family Survey: 1) respondent age, 2) respondent education, 3) whether the respondent believes the resident will permanently live in the nursing home, and 4) respondent's belief about whether the resident was capable of making decisions (See Table 10 on page 29 in AIR Final Report). Several additional items were considered as potential adjusters but were rejected for a variety of reasons. A full description of the risk adjustment process is available in the AIR Final Report on pages 26-33.

228: 3-ITEM CARE TRANSITION MEASURE (CTM-3)

Measure Steward: University of Colorado Health Sciences Center

Description: Uni-dimensional self-reported survey that measure the quality of preparation for care transitions.

Numerator: The 15-item and the 3-item CTM share the same set of response patterns: Strongly Disagree; Disagree; Agree; Strongly Agree (there is also a response for Don't Know; Don't Remember; Not Applicable). Based on a subject's response, a score can be assigned to each item as follows:

Strongly Disagree=1

Disagree=2

Agree=3

Strongly Agree=4

Next, the scores can be aggregated across either the 15 or 3 items, and then transformed to a scale ranging from 0 to 100. Thus the denominator is 100 and the numerator can range from 0 to 100.

Numerator Details:

Denominator: The CTM has application to all hospitalized adults. Testing has not included children, but the measure may have potential application to this population as well. Persons with cognitive impairment have been included in prior testing, provided they are able to identify a willing and able proxy. The CTM has been tested in English- and Spanish-speaking (using an available Spanish version of the CTM) populations.

Exclusions:

- Psychiatric patients
- Pediatric patients under age 18 years
- Patients who died in the hospital
- Patients who did not stay at least one night in the hospital
- Other patients as required by law or regulation in the state in which the hospital operates

Risk Adjustment: N/A

Appendix B
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