



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 2286

Corresponding Measures:

De.2. Measure Title: Functional Change: Change in Self Care Score

Co.1.1. Measure Steward: Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

De.3. Brief Description of Measure: Change in rasch derived values of self-care function from admission to discharge among adults receiving inpatient medical rehabilitation and discharged alive. The timeframe for the measure is 12 months. The measure includes the following 8 items: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory.

1b.1. Developer Rationale: The new mandated quality measures for Inpatient Rehabilitation Facilities (GG items within the IRF-PAI v 20 to be used October 2019) do not adequately address the rehabilitative objectives or functional status of patients. The measures do not allow facilities to substantiate the quality of their restorative care program to CMS or payers. The emphasis on restoration or maintenance of function affected by the patient's illness or injury is paramount in the episode of care. The primary aim of inpatient rehabilitation is to increase function to return the patient to living in the community. Yet the current measures don't adequately capture function or functional improvement. The current quality indicator measures address facility level process, which, has been argued, is not applicable to the IRF as the overall prevalence is very low (less than 2% of patients affected per year) and often times, the presence of the quality indicator occurred in the acute care setting or prior to admission to acute or post-acute care (CAUTIs and incidence of new or worsened pressure ulcers).

The self-care measure is constructed by utilizing items from the FIM® instrument, which is presently used across the post-acute care continuum. Measures of effectiveness, efficiency, timeliness, resource use and safety are an integral part of the FIM® instrument. The FIM® instrument is already used in inpatient rehabilitation as it is embedded in the IRF-PAI, which is presently required to be completed for prospective payment but will no longer be required as of October 2019. Utilizing the change in self-care function measure as a quality indicator would not create any additional costs to IRFs, since IRFs are already transmitting the current IRF-PAI data to CMS for payment purposes. The change in self-care measure has demonstrated both reliability and validity as results indicated a high overall internal consistency, the ability to capture significant functional gains during rehabilitation, has high discriminative capabilities for rehabilitation patients, and predictive of change in self-care function outcomes and likelihood of patient discharge from inpatient rehabilitation to the community. It is imperative that any quality indicators used for the PAC setting take into account the overriding goal of rehabilitation outcomes, which is to restore and improve function and increase functional independence among individuals receiving rehabilitation, and by doing so, allowing the patient the ability to return to a community setting upon discharge.

S.4. Numerator Statement: Average change in rasch derived self-care score from admission to discharge at the facility level. Items at admission and discharge include: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory. Average is calculated as: ((sum of change at the patient level for all items (Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory) / total number of patients)).

S.6. Denominator Statement: Facility adjusted expected change in rasch derived self-care values, adjusted at the Case Mix Group (CMG) level.

S.8. Denominator Exclusions: National values used in the CMG-adjustment procedure will not include cases who died in the IRF or cases less than 18 years old. It is standard to exclude cases who died during rehabilitation as this is a highly atypical outcome, in addition, minors are excluded as well. The measure testing file includes further explanation regarding the exclusion criteria as well as references.

De.1. Measure Type: Outcome

S.17. Data Source: [Instrument-Based Data, Other](#)

S.20. Level of Analysis: [Facility, Other](#)

IF Endorsement Maintenance – Original Endorsement Date: [Nov 04, 2015](#) Most Recent Endorsement Date: [Oct 25, 2019](#)

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results?

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[NQF_evidence_attachment_2286_.docx](#)

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

[Yes](#)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.

The new mandated quality measures for Inpatient Rehabilitation Facilities (GG items within the IRF-PAI v 20 to be used October 2019) do not adequately address the rehabilitative objectives or functional status of patients. The measures do not allow facilities to substantiate the quality of their restorative care program to CMS or payers. The emphasis on restoration or maintenance of function affected by the patient's illness or injury is paramount in the episode of care. The primary aim of inpatient rehabilitation is to increase function to return the patient to living in the community. Yet the current measures don't adequately capture function or functional improvement. The current quality indicator measures address facility level process, which, has been argued, is not applicable to the IRF as the overall prevalence is very low (less than 2% of patients affected per year) and often times, the presence of the quality indicator occurred in the acute care setting or prior to admission to acute or post-acute care (CAUTIs and incidence of new or worsened pressure ulcers).

The self-care measure is constructed by utilizing items from the FIM® instrument, which is presently used across the post-acute care continuum. Measures of effectiveness, efficiency, timeliness, resource use and safety are an integral part of the FIM® instrument. The FIM® instrument is already used in inpatient rehabilitation as it is embedded in the IRF-PAI, which is presently required to be completed for prospective payment but will no longer be required as of October 2019. Utilizing the change in self-care function measure as a quality indicator would not create any additional costs to IRFs, since IRFs are already transmitting the current IRF-PAI data to CMS for payment purposes. The change in self-care measure has demonstrated both reliability and validity as results indicated a high overall internal consistency, the ability to capture significant functional gains during rehabilitation, has high discriminative capabilities for rehabilitation patients, and predictive of change in self-care function outcomes and likelihood of patient discharge from inpatient rehabilitation to the community. It is imperative that any quality indicators used for the PAC setting take into account the overriding goal of rehabilitation outcomes, which is to restore and improve function and increase functional independence among individuals receiving rehabilitation, and by doing so, allowing the patient the ability to return to a community

setting upon discharge.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

Facility-level performance results are provided in the measure testing attachment.

Mean change in self-care scores at the facility level were computed and self-care change scores were grouped by quartile to determine if facilities can be 'ranked' in terms of patient outcomes (average change in self-care function from admission to discharge). There were 37 facilities in the 1st quartile (25th%) which includes mean self-care change scores less than 9.0, 489 facilities were in the 2nd quartile which includes mean self-care change scores of 9.0-13.0 (25th through 50th%), 288 facilities were in the 3rd quartile which includes mean self-care change scores of 13.1-18.9 (50th through 75th%) and 22 facilities were in the upper quartile (over 75th%) which includes mean self-care change scores 19.0 or greater. An ANOVA was conducted using the quartiles as constructed above to determine if there is a statistically significant difference between the self-care change scores by quartile. The means and standard deviations are displayed in Table 5 below. There were statistically significant differences between the mean self-care change scores by quartile grouping, $F=807723.87$ ($df=3$), $p=.000$. The $\eta^2 = .83$, η^2 is the effect size, it is considered the most important outcome of empirical research because the effect size captures the practical significance of the research results¹⁵. η^2 is interpreted as the proportion of variance accounted for in the dependent variable (mean self-care change) that is associated with the membership of different groups in the independent variable (quartile) and the value is interpreted similar to a correlation coefficient where as a value of .2 is considered a small effect, .5 a moderate effect and .8 is a large, strong effect¹⁵.

Table 5: Mean Change in Self-Care by Quartile

Quartile	Mean	N	Std. Deviation
25th%	4.5768	142637	4.23618
50th%	11.5356	103348	1.11252
75th%	15.8892	119853	1.40212
over 75th%	23.3347	123104	4.01989
Total	13.5434	488942	7.73567

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

Facility-level performance results are provided in the measure testing attachment and described above in 1b.2.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

Results of disparities analysis are included in the measure testing attachment.

There were no differences in mean change in self-care score (change in total self-care score from admission to discharge) by race ($\eta^2 < .001$ for all race/ethnic categories), sex ($\eta^2 < .001$) or marital status ($\eta^2 < .01$). This is consistent with the findings of other published research, references listed in the measure testing attachment.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

Results of disparities analysis are included in the measure testing attachment and described above in 1b.4.

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when

implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

De.6. Non-Condition Specific(check all the areas that apply):

Care Coordination, Health and Functional Status : Change

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Populations at Risk : Dual eligible beneficiaries, Populations at Risk : Individuals with multiple chronic conditions

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: NQF_Submission_Self_Care-635507770592714533.xlsx

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Attachment Attachment: IRFPAI_V20_2018.pdf

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Clinician

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

No

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

No changes to the measure specifications since last endorsement.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Average change in rasch derived self-care score from admission to discharge at the facility level. Items at admission and discharge include: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory. Average is calculated as: ((sum of change at the patient level for all items (Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory) / total number of patients)).

S.5. Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

For Inpatient Rehabilitation Facilities (IRFs) data collection currently occurs as required by the Centers for Medicare and Medicaid Services (CMS) reimbursement using the mandated payment document, the Inpatient Rehabilitation Facility Patient Assessment Instrument (IRF-PAI). Embedded in the IRF-PAI is the FIM® Instrument. The FIM® Instrument is a criterion referenced tool with 18 items that measure patient physical and cognitive functional status and patient burden of care (level of dependence/need for helper assistance). Each item is rated on a scale of 1 (most dependent) to 7 (completely independent). For the purposes of this measure, a subset of 8 FIM® items has been tested and validated which comprise the self-care measure; those items are: Feeding, Grooming, Dressing Upper Body, Dressing Lower Body, Toileting, Bowel, Expression, and Memory. Rasch analysis was performed on the 8 items and the difference in the rasch derived values (defined in S.2b) from admission to discharge reflect the change at the patient level. The numerator of the measure is the facility's average change.

While the IRF-PAI is specific to inpatient rehabilitation facilities, the measure can be used in all post-acute care venues. The FIM® instrument can be assessed in all venues of care and has been tested and validated for use in inpatient medical rehabilitation, long term acute care facilities (LTAC), skilled nursing facilities (SNF) and home health. At present, numerous LTACs and SNFs utilize the FIM® instrument (www.udsmr.org), thus the self-care measure is applicable for use in IRF, SNF, LTAC and other venues where patient functional change is anticipated.

S.6. Denominator Statement *(Brief, narrative description of the target population being measured)*

Facility adjusted expected change in rasch derived self-care values, adjusted at the Case Mix Group (CMG) level.

S.7. Denominator Details *(All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

To calculate the facility adjusted expected self-care change in rasch derived values, indirect standardization is used, which weights national CMG-specific values by facility-specific CMG proportions. CMG-adjustment derives the expected value based on the case mix and severity mix of each facility. The case-mix group (CMG) classification system groups similarly impaired patients based on functional status at admission (in essence, patient severity). Patients within the same CMG are expected to have similar resource utilization needs and similar outcomes. There are three steps to classifying a patient into a CMG at admission:

1. Identify the patient's impairment group code (IGC).
2. Calculate the patient's weighted motor index score, calculated from 12 of the 13 motor FIM® items as indicated on the CMS IRF-PAI v. 20 instrument (attached).
3. Calculate the cognitive FIM® rating (as indicated on the CMS IRF-PAI v. 20 instrument) and the patient age at admission. (This step is not required for all CMGs.)

See file uploaded in S.15 for calculations.

While CMGs are only present for patients admitted to an IRF, the same procedure can be used for patients receiving care at a LTAC facility and/or a SNF, with groupings specific to those venues of care.

S.8. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*

National values used in the CMG-adjustment procedure will not include cases who died in the IRF or cases less than 18 years old. It is standard to exclude cases who died during rehabilitation as this is a highly atypical outcome, in addition, minors are excluded as well. The measure testing file includes further explanation regarding the exclusion criteria as well as references.

S.9. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes*

with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

Patient date of birth (DOB) and discharge setting are both variables collected in the IRF-PAI. Age can be calculated from DOB and patient date of admission (also collected in the IRF-PAI). In the variable discharge setting, there is a specific category for 'died' (code: 11). Date of birth, date of admission and discharge setting (including died as a category) are also assessed in the LTAC and SNF.

S.10. Stratification Information (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)

While the measure can be stratified by specific impairment type (using IGC), the CMG adjustment procedure allows for the measure to be complete, accurate, and valid for all patients within the facility, excluding cases who died and excluding patient under age 18 years.

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

Stratification by risk category/subgroup

If other:

S.12. Type of score:

Ratio

If other:

S.13. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

Better quality = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)

1. Target population: Inpatient rehabilitation facility patients, skilled nursing facility short term patients, long term acute care facility patients, and home health patients.

2. Exclusions: Age less than 18 and cases who died during the episode of care.

3. Cases meeting target process: All remaining cases.

4. Outcome: Ratio of facility level average self-care change (rasch derived values) to facility CMG adjusted expected self-care change.

5. Risk adjustment: CMG adjustment using indirect standardization of the proportion of cases at the facility by CMG, and CMG specific national average of rasch derived value of self-care change.

S.15. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

If an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

All patients aged 18 and older discharged alive are included in measure testing and assessment of outcomes. Self-care measure is clinician assessed, the measure is not patient reported or proxy reported.

S.16. Survey/Patient-reported data (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

Specify calculation of response rates to be reported with performance measure results.

All self-care measure items at admission and discharge are required to be completed; values of 'not applicable' do not exist. The measure testing included complete data for all patients, whereby there were no missing values. Details on assessment instructions and item rating rules can be found on the CMS website under 'IRF-PAI Training Manual effective October 1, 2014 [ZIP, 2MB]' using the following link:

<https://www.cms.gov/medicare/medicare-fee-for-service-payment/inpatientrehabfacpps/irfpai.html>

S.17. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Instrument-Based Data, Other

S.18. Data Source or Collection Instrument (Identify the specific data source/data collection instrument (e.g. name of database,

clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

The collection instrument is the FIM Instrument, which is embedded in the CMS IRF-PAI instrument and can be found on page 2 using the following link: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/IRF-Quality-Reporting/Downloads/Final-IRF-PAI-Version-20-Effective-October-1-2018.pdf>

S.19. Data Source or Collection Instrument *(available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)*

Available in attached appendix at A.1

S.20. Level of Analysis *(Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)*

Facility, Other

S.21. Care Setting *(Check ONLY the settings for which the measure is SPECIFIED AND TESTED)*

Inpatient/Hospital, Post-Acute Care

If other:

S.22. COMPOSITE Performance Measure - Additional Specifications *(Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)*

For inpatient rehabilitation facilities, CMGs are used to create the adjusted expectation. CMGs are defined by: impairment group code, functional status at admission, and age at admission (for some CMGs). The FIM® instrument is divided into motor and cognitive items. Twelve of the 13 motor items are used to calculate a weighted motor index. CMS created this weighting methodology as a way of accounting for the effect of each FIM® motor item on the cost of providing care to a patient in an IRF. The patient's weighted admission FIM® motor rating is the sum of the weighted admission ratings for the 12 FIM® motor items. The following weights are used for each item:

- Eating: 0.6
- Grooming: 0.2
- Bathing: 0.9
- Dressing – Upper Body: 0.2
- Dressing – Lower Body: 1.4
- Toileting: 1.2
- Bladder Management: 0.5
- Bowel Management: 0.2
- Transfers: Bed, Chair, Wheelchair: 2.2
- Transfers: Toilet: 1.4
- Locomotion: Walk, Wheelchair: 1.6
- Locomotion: Stairs: 1.6

CMS chose not to include the item 'Transfers: Tub, Shower' in the weighted motor score because analysis performed by the RAND Corporation for CMS found that this particular motor item did not predict the cost of patient care as the other 12 items did predict patient resource utilization.

When calculating the weighted admission FIM® motor rating, a score of 0 for Transfers: Toilet is converted to a score of 2; a score of 0 for any other item at admission is converted to a score of 1.

While no such functional based grouping exists for LTAC facilities or SNFs, this same process can be utilized in these other venues to group similarly functioning patients to allow for the adjusted comparison.

For more details on CMG calculation, see 'CMG Version 3.00 [ZIP, 9.02mb]' at the following link:

<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/CMG.html>

2. Validity – See attached Measure Testing Submission Form

[NQF2286_Fall2018_testing_attachment_v7.1_Final.docx](#)

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the

testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

Yes - Updated information is included

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Generated or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields) Update this field for maintenance of endorsement.

ALL data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS)

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For maintenance of endorsement, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

No plans to develop an eMeasure at this time.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements

and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

No difficulties in data collection or use, no missing data.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

Measure is publicly available for use free of charge. Facility-level and national benchmark reporting available by UDSMR through a subscription, cost vary based on facility type and size. National reporting may be available free of charge if CMS elects to provide.

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Specific Plan for Use	Current Use (for current use provide URL)
Public Reporting	Payment Program CMS IRF-PAI
Regulatory and Accreditation Programs	cms.gov Quality Improvement (external benchmarking to organizations) National IRF Benchmark Reports udsmr.org Quality Improvement (Internal to the specific organization) Facility-level IRF Reports udsmr.org

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

Completion of the IRF-PAI is required by all IRFs throughout the country for all patients in which the IRF requests payment reimbursement from the Inpatient Rehabilitation Facility Prospective Payment System through the Centers for Medicare and Medicaid Services.

FIM® outcomes are currently benchmarked for all UDSMR subscribing facilities, with internal and external benchmarking options. UDSMR has 875 current enrolled IRFs which is roughly 80% of all IRF in the U.S. In addition, there are SNFs and LTAC facilities that subscribe to UDSMR and utilize the FIM® instrument to track patient functional outcomes (SNF = 152 and LTAC = 7).

4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

As described above in 4a1.1, completion of the IRF-PAI is required by all IRFs throughout the country for all patients in which the IRF requests payment reimbursement from the Inpatient Rehabilitation Facility Prospective Payment System through the Centers for Medicare and Medicaid Services.

4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

As described above in 4a1.1, completion of the IRF-PAI is required by all IRFs throughout the country for all patients in which the IRF requests payment reimbursement from the Inpatient Rehabilitation Facility Prospective Payment System through the Centers for Medicare and Medicaid Services.

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

Facilities subscribing to UDSMR primarily do so because of the national benchmarking reports and services that UDSMR provides. Patient outcomes are currently benchmarked for all UDSMR subscribing facilities, with facility level and national benchmark reporting provided on a quarterly basis. UDSMR maintains the world's largest government-independent repository of rehabilitation outcomes and IRF-PAI data. The repository contains data from over 1,400 rehabilitation facilities worldwide, 875 of which are IRFs in the United States, that use UDSMR's outcomes reporting, credentialing, auditing, training, and consulting services. UDSMR works with subscribing facilities and healthcare providers to document and improve patient functional outcomes, facility-level quality processes, and delivery of care in a uniform, standardized way.

For more than 30 years, UDSMR has been a national leader in medical rehabilitation outcomes reporting and has provided aggregate summary information to many well-known and well-regarded organizations, including the Medicare Payment Advisory Commission (MedPAC), the Centers for Medicare and Medicaid Services (CMS), the American Hospital Association (AHA), and the American Medical Rehabilitation Providers Association (AMRPA).

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

Patient level outcomes are currently benchmarked for all UDSMR subscribing facilities, with facility level and national benchmark reporting provided on a quarterly basis. UDSMR works with subscribing facilities and healthcare providers to document and improve patient functional outcomes, facility-level quality processes, and delivery of care in a uniform, standardized way. UDSMR provides assistance to subscribing facilities on coding and assessment education and support. Training for facility providers on patient assessment and functional outcomes documentation of the functional measures. Custom reports, facility quality improvement information and report interpretation is provided by request at no charge.

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

Feedback from users was not solicited. The items in the measure are not new and have been in use for over two decades in post acute rehabilitation.

4a2.2.2. Summarize the feedback obtained from those being measured.

Feedback was not solicited. The measure is clinician assessed and collected routinely as part of clinical care. Patients are not questioned and do not provide any responses for the items within the measures. The items in the measure are not new and have been in use for over two decades in post acute rehabilitation.

4a2.2.3. Summarize the feedback obtained from other users

Feedback from other users was not solicited.

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

No modifications were made to the measure. No negative feedback was received.

Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

Difference in average self-care change scores between facilities can be determined and rank ordered in terms of patient average change in self-care function from admission to discharge. Top performing facilities, in terms of patient change in self-care function, can be identified, in addition to facilities that are at the lowest quartile. There were statistically significant differences in mean change scores by quartile and the standard deviations within the quartiles were small, indicating some variability within groups but small enough so the scores are fully contained within the quartile and do not extend into another category.

4b2. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

No unexpected/unanticipated findings related to the self-care measure.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

CMS recently included new functional items in the IRF-PAI (GG items) which are similar to the items in measure #2286, except none of the new GG items measure cognitive function. In light of this, we examined the impact of the cognitive items of the self-care measure on the predictive validity of the self-care measure as a whole using stepwise regression. Regression models were performed to determine the contribution of each individual item within the measure on patient outcomes, the results are as follows: In predicting likelihood of patient discharge to the community: expression and memory were retained and statistically significant predictors ($p < .001$) in the model (in addition to all of the other self-care items, each item was significantly predictive of the outcome). In predicting inpatient length of stay: expression was retained and statistically significant ($p < .001$), in addition to all 6 motor/physical items, however, memory was not retained in this model and did not contribute in predicting patient LOS in the inpatient facility. In predicting patient change in function (total functional change from admission to discharge): expression and memory were retained and statistically significant ($p < .001$) predictors of functional change in the model in addition to each of the 6 motor/physical items. It was unexpected to find that the expression item was the first item retained in the model predicting patient change in function, with a contributing adjusted R² value of .23 for this item alone, thus the expression item predicted 23% of the variance in explaining patient change in overall function from admission to discharge from an inpatient facility. These results clearly support the inclusion of the two cognitive items within the self-care measure and provide evidence that patient self-care includes both physical and cognitive function; the physical aspect is well accepted but the cognitive aspect appears to be less understood, however the results demonstrate the importance of cognitive items when assessing a patient's self-care functional status and change in function from admission to discharge.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

No

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

No

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

Measure 2286 includes 8 self-care items (6 physical and 2 cognitive) rated on a 7 level scale, clinicians rate the patient's lowest actual observed score over the past 24 hour period (if patient is independent with toileting while awake but needs assistance in the middle of the night the rating would be the lowest/middle of the night score for the item), all items are to be rated at admission and at discharge, there are no codes for missing/do not apply. Measure 2633 includes 7 self-care items all of which are physical items, and uses a 6 level rating scale (1-6) which includes options for not assessing each item, thus allows for missing responses (ex. not applicable/ patient refused/ not attempted due to safety). For measure 2633, the patient's usual performance is used as the basis of the score whereby if a patient were independent in toileting during the day but needed assistance in the middle of the night the score would be independent as there would be more frequent independent episodes throughout the day opposed to a single instance over night. The two measures use different rating scales and different assessment rules and when trying to determine a patient's actual level of function, a 6 level scale is less sensitive than a 7 level scale as there is less 'room' to demonstrate change over time captured in the 6 level rating scale. Additionally, if clinicians are using the patient's functional level to determine patient discharge setting, using patient 'usual performance' may portray a higher level of function than truly exists for the patient, whereby if it is believed the patient is independent in certain items but does in fact need assistance at certain times of day or in some instances, and there are not provisions in place to provide the care, the patient is at risk for a fall or readmission to inpatient care if a caregiver or attendant is not with the patient to provide the assistance (such as in the example of toileting used previously). Furthermore, the inclusion of multiple 'missing' options for each item to be allowed for use at admission and at discharge lends the possibility for data that is not able to be interpreted, if an item is not rated at admission because the patient refused but is rated at discharge, of what value is this information? It is unknown if the patient would have been rated the exact same at admission, thus no change actually occurred from admission to discharge, of if there were an improvement, it would not be captured, or if there was a decline in function, this too is unknown, so if an item is not applicable (or not safe for administration at admission) than it lends question as to why it is included in the measure at all and if it is applicable, allowing missing values adds to the clinical data collection burden without any benefit to the patient as any other values collected cannot be interpreted directly when an item was missing at another point in time (an admission rating but no discharge rating or vice versa). Predictive models at the measure level require complete data so even if one value is missing for one item the entire case is dropped from the analytical model so the facility level outcome data would be impacted by the missing values as well as the patient level outcomes data.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

Measure #2286 is similar to CMS Measure #2633, except Measure #2286 is intended for all patients ages 18 and older receiving post acute care (at an IRF, SNF or LTAC facility) and Measure #2233 is intended for use among Medicare patients only (of which the majority is persons aged 65 and older) receiving care at an IRF. Furthermore, Measure #2286 includes both physical and cognitive functional items whereas Measure #2633 includes only physical items and does not include any items specific to cognitive self-care function. Measure 2286 includes 8 self-care items (6 physical and 2 cognitive) rated on a 7 level scale, clinicians rate the patient's lowest actual observed score over the past 24 hour period (if patient is independent with toileting while awake but needs assistance in the middle of the night the rating would be the lowest/middle of the night score for the item), all items are to be rated at admission and at discharge, there are no codes for missing/do not apply. Measure 2633 includes 7 self-care items all of which are physical items, and uses a 6 level rating scale (1-6) which includes options for not assessing each item, thus allows for missing responses (ex. not applicable/ patient refused/ not attempted due to safety). For measure 2633, the patient's usual performance is used as the basis of the score whereby if a patient were independent in toileting during the day but needed assistance in the middle of the night the score would be independent as there would be more frequent independent episodes throughout the day opposed to a single instance over night. The two measures use different rating scales and different assessment rules and when trying to determine a patient's actual level of function, a 6 level scale is less sensitive than a 7 level scale as there is less 'room' to demonstrate change over time captured in the 6 level rating scale. Additionally, if clinicians are using the patient's functional level to determine patient discharge setting, using patient 'usual performance' may portray a higher level of function than truly exists for the patient, whereby if it is believed the patient is independent in certain items but does in fact need assistance at certain times of day or in some instances, and there are not provisions in place to provide the care, the patient is at risk for a fall or readmission to inpatient care if a caregiver or attendant is not with the patient to provide the assistance (such as in the example of toileting used previously). Furthermore, the inclusion of multiple 'missing' options for each item to be allowed for use at admission and at discharge lends the possibility for data that is not able to be interpreted, if an item is not rated at admission because the patient refused but is rated at discharge, of what value is this information? It is unknown if the patient would have been rated the exact same at admission, thus no change actually occurred from admission to discharge, or if there were an improvement, it would not be captured, or if there was a decline in function, this too is unknown, so if an item is not applicable (or not safe for administration at admission) than it lends question as to why it is included in the measure at all and if it is applicable, allowing missing values adds to the clinical data collection burden without any benefit to the patient as any other values collected cannot be interpreted directly when an item was missing at another point in time (an admission rating but no discharge rating or vice versa). Predictive models at the measure level require complete data so even if one value is missing for one item the entire case is dropped from the analytical model so the facility level outcome data would be impacted by the missing values as well as the patient level outcomes data.

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Attachment Attachment: [Appendix-636824836707822691.pdf](#)

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

Co.2 Point of Contact: Paulette, Niewczyk, pniewczyk@udsmr.org, 716-817-7868-

Co.3 Measure Developer if different from Measure Steward: Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. and its successor in interest, UDSMR, LLC.

Co.4 Point of Contact: Paulette, Niewczyk, pniewczyk@udsmr.org, 716-817-7868-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

[Margaret DiVita, PhD](#), UDSMR assisted with the measure testing.

Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2014

Ad.3 Month and Year of most recent revision: 04, 2019

Ad.4 What is your frequency for review/update of this measure? Unknown, new measure

Ad.5 When is the next scheduled review/update for this measure? 04, 2019

Ad.6 Copyright statement: © 2014 Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities, Inc. All rights reserved.

Ad.7 Disclaimers:

Ad.8 Additional Information/Comments: