Institute for Healthcare Improvement

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Age-Friendly Health Systems Action Community Measure Guide

This content was created especially for:

Age-Friendly Health Systems

An initiative of The John A. Hartford Foundation and Institute for Healthcare Improvement in partnership with American Hospital Association and Catholic Health Association of the United States

Contents

Introduction

The Guide to Using the 4Ms describes a recipe for reliable implementation of the 4Ms (What Matters, Medication, Mentation, Mobility) as a set:

1. Get ready to assess and act on the 4Ms
2. Define what it means to provide care consistent with the 4Ms
3. Design/adapt your workflow to deliver care consistent with the 4Ms, including how you will document the 4Ms
4. Provide care consistent with the 4Ms
5. Study your performance – how reliable is your care? What impact does your care have?
6. Improve and sustain care consistent with the 4Ms

The measures outlined in this Measure Guide help you with step 5, to study your performance.

Data for improvement during the Action Community

Below you will find a set of outcome and process measures, and their operational definitions, for you to consider using during the Action Community to understand whether your changes are improvement.

Data sharing during the Action Community

We will ask each Action Community team to share monthly data from one measure: the number of patients receiving 4Ms care in that month, aligned with the description of 4Ms care you have developed for your site(s) of care. This is submitted monthly via the 4Ms Description Survey.

We also encourage each Action Community team to test and study results from a small number of conversations with older adults or their caregivers for adults unable to speak for themselves. Gathering of this qualitative data will be useful for learning.

The conversation outline is contained in Appendix 1.

Overview of Measures

Table of Measures

Table 1 lists the measures we have identified for the Action Community.

4Ms Measure	Hospital site	Ambulatory/ Primary Care site
Older Adults receiving 4Ms care	X	X
Basic Outcome Measures	**Hospital site**	**Ambulatory/ Primary Care site**
30-day readmissions	X	
ED Utilization		X
CAHPS survey questions	HCAHPS	CGCAHPS
Length of Stay	X	
Advanced Outcome Measures	**Hospital site**	**Ambulatory/ Primary Care site**
Delirium	X	
collaboRATE (or similar tool adopted by your system)	X	X

Impact of Race and Ethnicity

We recognize the persistence of important differences in treatment and health outcomes associated with race, ethnicity and other social factors. Health equity requires that health systems stratify key performance measures by these factors to reveal disparities and provoke action to eliminate them.

For our Age Friendly Action Community, we encourage you to stratify outcome measures for older adults using the Office of Management and Budget core race and ethnicity factors to identify disparities in patient care and experience.

Measures for Process Improvement

Project teams typically track aspects of 4Ms care as they test changes to workflow as they work to provide 4Ms care to every older adult in their care. Appendix 2 has a set of process measures that teams have found useful to monitor impact of tests and guide management action.

4Ms Measure

Hospital Site of Care

Measure Name	Number of patients who receive age-friendly (4Ms) care
Measure Description	Number of patients 65+ who receive 4Ms care as described by the hospital
Site	Hospital
Population Measured	Adult patients 65+
Measurement Period	Monthly
Count	Inclusion: Patients 65+ with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period who receive the unit's description of 4Ms care
Measure Notes	The measure may be applied to units within a system as well as the entire system. See the 4Ms Care Description Worksheet to describe 4M care for your unit. To be considered age-friendly (4M) care, you must engage or screen all patients 65+ for all 4Ms, document the results, and act-on them as appropriate. If a total count is not possible, you can sample (e.g., audit 20 patient charts) and estimate the total as # of patients receiving 4Ms care/20 x total number of patients cared for in the measurement period. If you are sampling, please note that when sharing data. Once you have established 4Ms care as the standard of care on your unit, validated by regular observation and process review, you can estimate the number of patients receiving 4Ms care as the number of patients cared for by the unit. You do not need to filter the number of patients by unique MRN.

Ambulatory/Primary Care Site of Care

Measure Name	Number of patients who receive age-friendly (4M) care
Measure Description	Number of patients 65+ who receive 4M care as described by the measuring unit
Site	Ambulatory
Population Measured	Adult patients 65+
Measurement Period	Monthly
Count	Inclusion: All patients 65+ in the population considered to be patients of the ambulatory or primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement

	period and who receive 4Ms care as defined by the site. Exclusions: None
Measure Notes	The measure may be applied to units within a system as well as the entire system. See the 4Ms Care Description Worksheet to describe 4Ms care for your unit. To be considered age-friendly (4Ms) care, you must engage or screen all patients 65+ for all 4Ms, document the results, and act-on them as appropriate Note that 4Ms care screening in primary care may be defined as screening within the previous 12 months. If a total count is not possible, you can sample (e.g., audit 20 patient charts) and estimate the total as # of patients receiving 4Ms care/20 x total number of patients cared for in the measurement period. If you are sampling, please note that when sharing data. Once you have established 4Ms care as the standard of care on your unit, validated by regular observation and process review, you can estimate the number of patients receiving 4Ms care as the number of patients cared for by the unit. You do not need to filter the number of patients by unique MRN.

Hospital Outcome Measures

30-Day All-Cause Readmission Rate

Measure Name	30-day all-cause readmission rate
Measure Description	Percentage of patients who are readmitted to hospital within 30 days following discharge
Site	Hospital or aggregated across hospitals in a system
Population Measured	Patients 65+
Measurement Period	Choose monthly or quarterly (Monthly measurement can reveal signals of change faster than quarterly measurement; however, monthly measurement may yield low numbers of readmitted patients and make it difficult to interpret the measurement time series.)
Denominator	Inclusions: Patient discharged from a specific set of hospitals in the measurement period Exclusions: None
Numerator	Inclusions: Number of patients in the denominator who are readmitted to a specific set of hospitals within 30 days of discharge for any reason Exclusions: None
Data Source	Administrative and health records
Method Details	1. Lower is better. 2. The 'specific set of hospitals' is key to calculation of the rate. Here is an example definition from a hospital system with two large hospitals (A and B) and three small satellite hospitals: *Count the number of patients who had an inpatient stay in either hospital A or B and were readmitted to any of the five hospitals in our system within 30 days for any reason.* For this system, the specific set of hospitals are the two large hospitals and the three small hospitals. If a system has a data-sharing arrangement with hospitals not in its system, then the defined set of hospitals can be larger than the number of hospitals in the system. 3. The readmission measure need not be identical across systems. The intention is that each hospital or system will be able to monitor impact of changes over time, not to create rankings or league tables across systems. 4. Recent literature raises the issue that focus on 30-day readmission, especially for conditions covered by the CMS Hospital Readmissions Reduction Program (HRRP) may cause an increase in mortality, e.g. Wadhera R.K., Joynt Maddox K.E., Wasfy J.H. et al. Association of the Hospital Readmissions Reduction

	Program with mortality among Medicare beneficiaries hospitalized for heart failure, acute myocardial infarction, and pneumonia, JAMA 2018;320(24):2542-2552. "Among Medicare beneficiaries, the HRRP was significantly associated with an increase in 30-day post-discharge mortality after hospitalization for HF and pneumonia, but not for AMI. Given the study design and the lack of significant association of the HRRP with mortality within 45 days of admission, further research is needed to understand whether the increase in 30-day post-discharge mortality is a result of the policy."

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)

Measure Name	HCAHPS overall experience
Measure Description	Top-box percentages for HCAHPS questions 21 and 22
Site	Hospital
Population Measured	Patients 65+
Measurement Period	Quarter
Denominator	Patients responding to HCAHPS survey
Numerator	Patients responding 'top-box' to specified questions
Data Source	HCAHPS data
Method Details	1. 'Top-box' is explained here https://www.hcahpsonline.org/en/summary-analyses/ 2. Stratification of responses by age 65+ is the only difference between the standard HCAHPS measures and the proposed measures. a. Rather than using the entire set of responses to calculate patient experience, responses will need to be put into age strata and then responses calculated. b. Stratification may lead to smaller numbers than recommended for detailed analysis. i. Obtain 12 months of survey responses stratified by age group to determine median number of responses. If the median monthly number of responses is more than 10 per month in each stratum, run charts of the HCAHPS scores are likely to be informative. If median monthly numbers are less than 10 per month per stratum, pool the monthly numbers into quarterly values. 3. While any of the individual questions or composite scores (e.g., physician communication) may be tracked, we propose focus on questions 21 and 22, related to overall experience and willingness to recommend.

Average Length of Stay

Measure Name	Average Length of Stay
Measure Description	Average Length of Stay for Adult patients 65+
Site	Hospital
Population Measured	Adult patients 65+ discharged from the hospital during the measurement period, where age is determined at date of admission.
Measurement Period	Monthly
Denominator	Inclusions: Patients 65+ discharged from the hospital during the measurement period or who die in hospital during the measurement period. Exclusions: None
Numerator	Sum of length of stay for each patient in the denominator, calculated as (a) date of discharge – date of admission + 1 for patients who are discharged or (b) date of death – date of admission +1 for patient who die during the measurement period. Exclusions: None
Measure Notes	1. The measure outlined here is a raw measure. There are no proposed exclusions or adjustments for risk. 2. If the hospital uses a length of stay measure as part of its regular reporting calculated by a different formula, the hospital should continue to use that definition applied to patients 65+. 3. The measure may be applied to units within the hospital as well as the entire hospital. 4. We encourage hospitals to review the distribution of length of stay records to understand impact of care and changes to care on the patients with relatively long stays.

Advanced Outcome Measures

Delirium

Measure Name	Patients with diagnosis of delirium
Measure Description	Percentage of patients with positive result on delirium assessment
Site	Hospital
Population Measured	Patients 65+
Measurement Period	Month
Denominator	Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period Exclusion: None
Numerator	Inclusion: Patients with positive result on delirium assessment Exclusion: None
Data Source	Health records
Method Details	1. Lower is better. 2. Useful delirium rate data presupposes agreement on protocols for delirium screening, diagnosis and documentation, linked to design and application of appropriate work flows in all nursing units. This measurement 'pre-work' should be matched with protocols for delirium prevention and response, with appropriate workflows. For a case example, see Allen KR, Fosnight SM,Wilford R et al. Implementation of a System-Wide Quality Improvement Project to Prevent Delirium in Hospitalized Patients. JCOM. 2011; 18(6): 253-258. 3. An alternative to use of health records to identify patients with delirium is to use claims data, querying ICD-10 codes in series F05, F13 (.121,.221,.231,.921,.931), and F19 (121,.221,.231,.921,.931). Claims data typically will lag clinical treatment and actions, hence claims-based measurement may be less useful for improvement work. Please note that initial experience with claims data indicates claims data will underestimate delirium incidence relative to health records in sites that use screening tools reliably with positive screens followed by clinical determination. 4. For units with small numbers of patients, consider these alternatives to the rate measure, which require counting of patient days: (a) Number of patient days with delirium per 1,000 patient days; or (b) Number of patient days between cases of delirium.

	5. As your system improves consistency of documentation of delirium, delirium rate is likely to increase at least in the short term. Communicate this likelihood to your team and managers.

collaboRATE

Measure Name	Survey of Care Concordance with What Matters
Measure Description	Percentage **collabo**RATE 'top-box' score
Site	Hospital in-patient unit
Population Measured	Patients 65+
Measurement Period	Choose weekly or monthly (Weekly measurement will support faster testing/learning cycles but has consequently higher measurement burden and may not be feasible.)
Denominator	Number of complete surveys returned from patients Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period. For patients cognitively unable to respond to the questions, use the proxy version of **collabo**RATE. Exclusions: None
Numerator	Count of surveys with top-box answers to all three questions ('all or nothing' score) Exclusions: None
Method Details	1. pdf versions of collaboRATE scale available at http://www.glynelwyn.com/collaborate-measure.html; we recommend the 10 point scale version, available in multiple languages and in proxy form. 2. Measure development notes suggest (a) a minimum of 25 completed surveys to compute a top-box percentage; (b) importance of respondent confidentiality http://www.glynelwyn.com/scoring-collaboRATE.html. 3. To support informed analysis and interpretation, units should track total number of patients approached to obtain the completed number of surveys. 4. To address survey burden for staff and patients, there are two options for sampling: Ask every k-th patient such that N/(m*k) >= 25 for the measurement period OR gather responses from 25*m consecutive patients during the measurement period (a "pulse" approach). Here N is the expected number of patients in the population in the measurement period and m is a factor that accounts for refusal to respond to the survey. Typical ranges of m are 2.5 to 4 (personal communication with G. Elwyn, 30 May 2018). 5. Paper/manual data tools will work for initial testing but are not likely to scale. Organizations will need to develop information technology to allow patients to respond to the questions and to summarize the measurement with low effort.

Ambulatory/Primary Care Outcome Measures

Basic Outcome Measures

Rate of Emergency Department (ED) Visits

Measure Name	Rate of ED visits
Measure Description	Emergency department visits per 1,000 patients, 65+
Site	Primary Care
Population Measured	Adult population 65+
Measurement Period	Month
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) Exclusions: None
Numerator	Inclusion: Number of emergency department visits by patients in the denominator in the measurement month Exclusions: None
Data Source	Health records
Method Details	1. Lower is better. 2. The calculation of the denominator depends on the definition of association of patients to the practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years). 3. The calculation of the numerator depends on the sharing of medical record information between the primary care practice and a specific set of emergency departments. Integrated health systems typically will have fewer obstacles in calculating the numerator for patients seen in emergency departments within their system. Independent primary care practices often will have information on their patients from 'near-by' emergency departments, defined by custom. As this measure is proposed to be calculated from health records rather than claims data, we expect that a small number of ED visits may be missed in a month (e.g., visits by patients who are traveling far from home and have a visit to an ED that does not share information with the primary care practice.) However, we expect the number of missed visits to be small and relatively constant month-to-month, with consequent modest impact on usefulness of the measure as an indicator of ED utilization by older patients.

	Example calculation: The proposed measurement period is month. Calculate the denominator, calculate the numerator, and normalize rate. In August 2018, 2000 patients considered to be patients of the primary care clinic were aged 65+ For those 2000 patients, there were 110 ED visits. So calculate: (110/2000) x 1000 = 55 ED visits per 1000 patients aged 65+.

Consumer Assessment of Healthcare Providers and Systems – Clinical and Group Survey (CG-CAHPS) Communication Composite

Measure Name	CG-CAHPS rating of communication (composite)
Measure Description	Top-box percentage for CG CAHPS communication composite
Site	Primary care
Population Measured	Patients 65-74, 75 years or older (corresponding to structure of the standard age stratification question included in CG-CAHPS core questions)
Measurement Period	Quarterly
Denominator	4
Numerator	Top Box percentage for each of the component questions in the communications composite
Data Source	CG-CAHPS data
Method Details	1. The questions in the communication composite are numbered 11, 12, 14 and 15 in the basic CG-CAHPS version 3.0, https://www.ahrq.gov/sites/default/files/wysiwyg/cahps/surveys-guidance/cg/survey3.0/adult-eng-cg30-2351a.pdf: • In the last 6 months, how often did this provider explain things in a way that was easy to understand? • In the last 6 months, how often did this provider listen carefully to you? • In the last 6 months, how often did this provider show respect for what you had to say? • In the last 6 months, how often did this provider spend enough time with you? 2. Calculation of 'Top Box' for composite scores is explained here as a simple average of individual question 'Top Box' scores: https://cahpsdatabase.ahrq.gov/cahpsidb/Public/Files/Doc6_CG_How_Results_are_Calculated_2012.pdf 3. Stratification of responses by age is the only difference between the standard CG-CAHPS measures and the proposed measures. a. Rather than using the entire set of responses to calculate patient experience, responses will need to be put into age strata and then responses calculated. b. Stratification may lead to smaller numbers than recommended for detailed analysis. i. Obtain 12 months of survey responses stratified by age group to determine median number of responses. If the median monthly number of responses is more than 10 per month in each stratum, run charts of the CG-CAHPS scores are likely to be informative. If median monthly numbers are less than 10 per month per stratum, use quarters as the time step.

	4. Measures is to be aggregated over all providers in the ambulatory or primary care organization.

Consumer Assessment of Healthcare Providers and Systems – Clinical and Group Survey (CG-CAHPS) Communication Question

Measure Name	CG-CAHPS rating of medication question
Measure Description	Top-box percentage for CG-CAHPS medication question
Site	Primary care
Population Measured	Patients 65-74, 75 years or older (corresponding to structure of the standard age stratification question included in CG-CAHPS core questions)
Measurement Period	Quarterly
Denominator	Patients responding to CG-CAHPS survey
Numerator	Patients responding 'top-box' to the specified question (answering Always)
Data Source	CG-CAHPS data
Method Details	1. The medication question is question 20 in the basic CG-CAHPS 3.0 survey https://www.ahrq.gov/sites/default/files/wysiwyg/cahps/surveys-guidance/cg/survey3.0/adult-eng-cg30-2351a.pdf • In the last 6 months, how often did you and someone from this provider's office talk about all the prescription medicines you were taking? 2. 'Top-box' is explained here https://cahpsdatabase.ahrq.gov/cahpsidb/Public/Files/Doc6_CG_How_Results_are_Calculated_2012.pdf 3. Stratification of responses by age is the only difference between the standard CG-CAHPS measure and the proposed measure. a. Rather than using the entire set of responses to calculate patient experience, responses will need to be put into age strata and then responses calculated. b. Stratification may lead to smaller numbers than recommended for detailed analysis. i. Obtain 12 months of survey responses stratified by age group to determine median number of responses. If the median monthly number of responses is more than 10 per month in each stratum, run charts of the CG-CAHPS scores are likely to be informative. If median monthly numbers are less than 10 per month per stratum, use quarters as the time step. 4. Measure is to be aggregated over all providers in the ambulatory or primary care organization.

Optional Advanced Outcome Measure

collaboRATE

Measure Name	Survey of Care Concordance with What Matters
Measure Description	Percentage **collabo**RATE 'top-box' score
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Choose weekly or monthly (Weekly measurement will support faster testing/learning cycles but has consequently higher measurement burden and may not be feasible.)
Denominator	Number of surveys completed Inclusions: Patients in the population seen for any reason by the primary care unit during the measurement period. For patients cognitively unable to respond to the questions, use the proxy version of **collabo**RATE Exclusions: None
Numerator	Count of surveys with top-box answers to all three questions ('all or nothing' score) Exclusions: None
Method Details	1. pdf versions of collaboRATE scale available at http://www.glynelwyn.com/collaborate-measure.html; we recommend the 10 point scale version, available in multiple languages and in proxy form. 2. Measure development notes suggest: (a) a minimum of 25 completed surveys to compute a top-box percentage; (b) importance of respondent confidentiality http://www.glynelwyn.com/scoring-collaboRATE.html. 3. To support informed analysis and interpretation, units should track total number of patients approached to obtain the completed number of surveys. 4. To address survey burden for staff and patients, there are two options for sampling: Ask every k-th patient such that N/(m*k) >= 25 for the measurement period OR gather responses from 25*m consecutive patients during the measurement period (a "pulse" approach). Here N is the expected number of patients in the population in the measurement period and m is a factor that accounts for refusal to respond to the survey. Typical ranges of m are 2.5 to 4 (personal communication with G. Elwyn, 30 May 2018). 5. Paper/manual data tools will work for initial testing but are not likely to scale. Organizations will need to develop information technology to allow

	patients to respond to the questions and to summarize the measurement with low effort.

Appendix 1: Conversations with Older Adults about 4Ms care

We encourage each site of care to test conversations with older adults about 4Ms care. We expect you to gain insights into your system and perceptions of the older adults' experience of their health care.

Test 1:

Plan: Invite one older adult to have a conversation with you for a few minutes about their experience of care. Explain that your team or site of care aims to improve the care for older adults and is seeking insights and reactions. Try these two questions:

a) What works well in your health care now that we should keep doing?

b) What should we change to make your health care better?

Listen and make notes of the answers.

> Your predictions might include: (a) Your invitation will be accepted; (b) You can ask the two questions; (c) You will hear at least one surprising observation or perception; (d) The conversation will last less than 10 minutes.

Do: Carry out the conversation using your plan.

Study: Compare predictions to the actual conversation. Did you learn anything about how to engage an older adult in conversation about their experience of health care? Do you want to modify the way you introduce your request or the words you use to ask the questions?

Act: Plan the next test cycle.

Test 2:

Plan: Invite a sequence of five older adults to have a 1-1 conversation with you for a few minutes about their experience of care. As before, explain the reasons for the conversation and use your two questions.

Listen and make notes of the answers.

> Your predictions might include: (a) Your invitations will be accepted by at least 4 of 5 people; (b) You can ask the two questions; (c) You will hear at least one surprising observation or perception from at least three people; (d) The conversation will last less than 10 minutes, on average.

Do: Carry out the conversations using your plan.

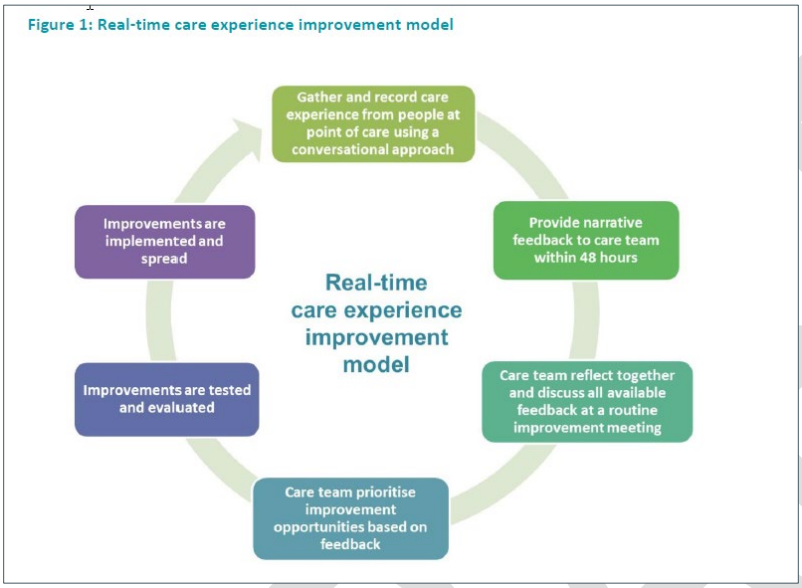
Study: Compare predictions to the actual conversation. Did you learn anything about how to engage an older adult in conversation about their experience of health care? Do you want to modify the way you introduce your request or the words you use to ask the questions?

Act: Decide if you will continue to test conversations with older adults. What would it take to have a few conversations every month with older adults in your care?

A note on conversations with patients

A recent multi-site test[1] by NHS Scotland demonstrates that a regular, recurring sequence of conversations with patients can drive changes in care systems.

Figure 1: Real-time care experience improvement model



According to the NHS Scotland study, hearing a patient's direct words has the power to inspire teams to change practices to improve performance. The Scottish method explicitly linked the patient words to a structured improvement method. Words and improvement methods form a learning cycle (see Figure 1)

[1] https://ihub.scot/person-centred-health-and-care-build/real-time-and-right-time-evaluation-report/ accessed 13 March 2019)

Appendix 2: Process Measures

Process Measures

Process Measures	Hospital site	Ambulatory/ Primary Care
What Matters documentation	X	X
Patients on targeted medications	X	X
Screened for delirium	X	NA
Screened for depression	NA	X
Screened for dementia	NA	X
Screened for mobility	X	X

Hospital Measures

What Matters Documentation

Measure Name	What Matters Documentation
Measure Description	Percentage of patients with documentation of What Matters (100 x numerator/denominator)
Site	Hospital/in-patient unit
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator with documentation of What Matters, per the unit's definition of What Matters Exclusions: None For patients unable to speak for themselves, your What Matters engagement should include interaction with an appropriate health care agent to understand What Matters. Note about patients who decline to engage in discussion of What Matters in a specific encounter: a. Our recommendation: Your procedure should allow for patients to decline. A patient who declines to answer 'counts' in the numerator. b. You will have to judge whether the percentage of patients who decline to answer is acceptable. If too high, then you have a target for study and improvement.
Data Source	Health records
Method Details	1. Asking What Matters is defined by the unit for the patients it serves. At minimum, asking What Matters involves: (a) querying the medical record for existing documentation of What Matters and care wishes; (b) engaging patient or health care agent in discussion of What Matters as defined by the unit. 2. Documentation standard is defined by the unit for the patients it serves; standard describes documentation content and method of recording content. 3. If an automated report is possible, calculate denominator and numerator. 4. If a complete manual tally is possible, calculate denominator and numerator. 5. If neither an automated report nor a complete tally is possible, sample records at the end of the measurement period and calculate numerator and denominator. You can apply a stopping rule to further reduce measurement burden.

	6. What Matters documentation focuses on what matters to the older adult; it is not intended to be a specific measure of advance care planning (typically a measure like NQF 326).

Patients on Targeted Medications[2]

Measure Name	Patients on targeted medications
Measure Description	Percentage of patients with active use of one or more medications on target list (100 x numerator/denominator)
Site	Hospital
Population Measured	Patients 65+
Measurement Period	Monthly
Denominator	Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator with active use of one or more medications on target list in the Appendix 2: Tables of Medications. Exclusions: None
Data Source	Medical Record/Pharmacy administration records
Method Details	1. This measure will be reviewed during our Action Community work; we anticipate further discussion to refine the measure. 2. The target list of medications in the Appendix: Tables of Medications combines the medications named in measures developed by Pharmacy Quality Alliance (www.pqaalliance.org) specifically *Polypharmacy: Use of Multiple Anticholinergic Medications in Older Adults (POLY-ACH)* and *Concurrent Use of Opioids and Benzodiazepines (COB)*. Tables are used with permission of PQA, with the understanding that this Action Community measure does not represent a current measure or measures endorsed by PQA. a. Over-the-counter (OTC) drugs, sleep aids, and sedatives can also be problematic; if any OTC medications have ingredients on the target

[2] The 'Patients on Targeted Medications' measure is adapted with permission based on selected elements of PQA measures, POLY-ACH and COB. In this adapted form, these monitoring measures no longer represent the PQA measures. The PQA measures were developed by and are owned by the Pharmacy Quality Alliance ("PQA"). PQA retains the rights to PQA measures and can rescind or alter the measures at any time. Use of PQA measures, including reproduction, distribution, publication must be approved by PQA and are subject to a license at the discretion of PQA.

	list, then use of these OTC medications will trigger inclusion of a patient in the numerator. b. There are clinically appropriate uses for medications on the target list, individually and in combination. The medication measure is intended to help you characterize the extent of medication use. c. To more closely align with PQA measures, we considered splitting this single medication measure into two measures, one focused on anticholinergic medications and the other on concurrent use of opioids and benzodiazepines. Based on current faculty discussion and recommendations, we opted for a single measure. 3. Active use is defined by medications administered to the patient between admission and discharge (as defined by the pharmacy administration records).

Delirium Screening

Measure Name	Delirium Screening
Measure Description	Percentage of patients screened for delirium
Site	Hospital/in-patient unit
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator screened for delirium according to the standard procedure established on the unit
Data Source	Health records
Method Details/Notes	• Standard procedure should include a screen for delirium at least every 12 hours using an instrument such as the 2-Item Ultra-Brief (UB-2) Delirium Screen and documentation in the medical record. • Note that the screening protocol complements delirium prevention protocol related to medication, mobility, hydration, and sleep hygiene.

Mobility Screening

Measure Name	Mobility screening
Measure Description	Percentage of patients screened for mobility
Site	Hospital in-patient unit
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: Patients with LOS >= 1 day present on the unit between 12:01 AM on the first day of the measurement period and 11:59 PM on the last day of the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator screened for mobility according to the standard procedure* established on the unit Exclusions: None
Data Source	Health records
Method Details/Notes	*The standard should include, at minimum: a. Assess mobility status of patient in one of three categories: (a) bedbound at admission; (b) chairbound at admission; (c) neither (a) nor (b). If status (c) further assess patient with validated tool (e.g., Timed Up & Go (TUG), physical therapy evaluation). b. Document assessment in the medical record.

Ambulatory/Primary Care Measures

What Matters Documentation

Measure Name	Document What Matters
Measure Description	Percentage of patients with documentation of What Matters (100 x numerator/denominator)
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Choose weekly or monthly (Weekly measurement will support faster testing/learning cycles but has consequently higher measurement burden and may not be feasible.)
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator with documentation of What Matters within 12 months of the most recent office visit, home visit, or tele-medicine visit in the measurement month, per the primary care unit's definition of What Matters Exclusions: None For patients unable to speak for themselves, your What Matters engagement should include interaction with an appropriate health care agent to understand What Matters. Note about patients who decline to engage in discussion of What Matters in a specific encounter: a. Our recommendation: Your procedure should allow for patients to decline to discuss What Matters. A patient who declines to answer in the course of your standard engagement 'counts' in the numerator. b. You will have to judge whether the percentage of patients who decline to answer is acceptable. If too high, then you have a target for study and improvement. We can ask teams to share data on declines.
Data Source	Health records
Method Details	1. Asking What Matters is defined by the primary care practice for the patients it serves. At minimum, asking What Matters involves: (a) querying the medical record for existing documentation of What Matters and care wishes; (b) engaging patient or health care agent in discussion of What Matters as defined by the unit. 2. Documentation standard is defined by the primary care practice for the patients it serves; standard describes documentation content and method of recording content. 3. If an automated report is possible, calculate denominator and numerator.

	4. If a complete manual tally is possible, calculate denominator and numerator. 5. If neither an automated report nor a complete tally is possible, sample records at the end of the measurement period and calculate numerator and denominator. You can apply a stopping rule to further reduce measurement burden. 6. What Matters documentation focuses on what matters to the older adult; it is not intended to be a specific measure of advance care planning (typically a measure like NQF 326).

Patients on Targeted Medications[3]

Measure Name	Patients on targeted medications
Measure Description	Percentage of patients with active use of one or more medications on target list (100 x numerator/denominator)
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Monthly
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator with active use of one or more medications on target list in the Appendix 2: Tables of Medications Exclusions: None
Data Source	Medical Record
Method Details	1. This measure will be reviewed during our Action Community work; we anticipate further discussion to refine the measure. 2. The target list of medications in the Appendix: Tables of Medications medications named in measures developed by Pharmacy Quality Alliance (www.pqaalliance.org) specifically *Polypharmacy: Use of Multiple Anticholinergic Medications in Older Adults (POLY-ACH)* and *Concurrent Use of Opioids and Benzodiazepines (COB)*. Tables are used with permission of PQA, with the understanding that this Action Community measure does not represent a current measure or measures endorsed by PQA.

[3] The 'Patients on Targeted Medications' measure is adapted with permission based on selected elements of PQA measures, POLY-ACH and COB. In this adapted form, these monitoring measures no longer represent the PQA measures. The PQA measures were developed by and are owned by the Pharmacy Quality Alliance ("PQA"). PQA retains the rights to PQA measures and can rescind or alter the measures at any time. Use of PQA measures, including reproduction, distribution, publication must be approved by PQA and are subject to a license at the discretion of PQA.

	a. Over-the-counter (OTC) drugs, sleep aids, and sedatives can also be problematic; if any OTC medications have ingredients on the target list, then use of these OTC medications will trigger inclusion of a patient in the numerator. b. There are clinically appropriate uses for medications on the target list, individually and in combination. The medication measure is intended to help you characterize the extent of medication use. c. To more closely align with PQA measures, we considered splitting this single medication measure into two measures, one focused on anticholinergic medications and the other on concurrent use of opioids and benzodiazepines. Based on current faculty discussion and recommendations, we opted for a single measure. 3. Active use is defined by active medications in the medical record (e.g., "Current Medications" items in a discharge note or items viewed by patient in patient portal. (e.g., In Epic MyChart, Health > Medications. In Cerner, clinicians can access medications through use of Dynamic Work List function and filter on current medications.)

Depression Screening

Measure Name	Depression screening
Measure Description	Percentage of patients screened for depression
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: Patients with active diagnosis of depression or bipolar disorder; patients currently in hospice; patients who refuse the screen with documentation of refusal and do not have documentation of a screen within the past 12 months
Numerator	Inclusion: Patients in the denominator with documentation of depression screening within 12 months of the most recent office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: None
Data Source	Health records
Method Details	1. HEDIS 2018 measure "Depression Screening and Follow-up for Adolescents and Adults (DSF)" provides relevant background for screening tools and exclusions in the context of annual measurement using electronic clinical data records. NQF 0418 "Preventive Care and Screening: Screening for Depression and Follow-Up Plan," based on claims data, targets the same population and process actions.

	2. Persons with dementia require special screening. "Depression screening in persons with dementia is hindered at times by the patient's inability to self-report symptoms and tendency to underestimate degree of depression, and discrepant caregiver reports (Teri, Wagner, 1991). The assessment of depression in dementia is complicated by the considerable overlap in its clinical presentation with that of dementia." Brown, E.L. et al. Evidence-Based Guideline: Detection of Depression in Older Adults with Dementia J. Gerontol Nurs, 2009; 35(2): 11-15. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891505/#R28 3. Organizations should seek to develop and apply a 'pragmatic approach' to depression screening. "There is little evidence regarding the optimal timing for screening. The optimum interval for screening for depression is also unknown; more evidence for all populations is needed to identify ideal screening intervals. A pragmatic approach in the absence of data might include screening all adults who have not been screened previously and using clinical judgment in consideration of risk factors, comorbid conditions, and life events to determine if additional screening of high-risk patients is warranted." (US Preventive Services Task Force Recommendation Statement. Screening for Depression in Adults, January 26, 2016 https://jamanetwork.com/journals/jama/fullarticle/2484345 accessed 8 August 2018)

Dementia Screening

Measure Name	Dementia screening
Measure Description	Percentage of patients screened for dementia
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: Patients with diagnosis of dementia (major neurocognitive disorder); patients who refuse the screen with documentation of refusal and do not have documentation of a screen within the past 12 months
Numerator	Inclusion: Patients in the denominator with documentation of dementia screening within 12 months of the most recent office visit, home visit, or tele-medicine visit during the measurement period. Exclusions: None
Data Source	Health records
Method Details	1. Exclusion of patients who refuse the screen with documentation of refusal AND do not have a screen in the past 12 months is technically a denominator exception. However, since the effect is to remove such patients from the denominator count, we use the single term exclusion. 2. Based on clinical judgment, patients may be screened more frequently than once every 12 months. 3. A recommended screening instrument is the Mini-Cog https://mini-cog.com/about/using-the-mini-cog/. 4. While the U.S. Preventive Services Task Force in March 2014 concluded that then current evidence was "…insufficient to assess the balance of benefits and harms of screening for cognitive impairment"[4], screening for dementia is a core part of the 4Ms and currently promoted by CMS as part of Annual Wellness exams.

[4] https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cognitive-impairment-in-older-adults-screening accessed 10 March 2019.

Mobility Screening

Measure Name	Mobility screening
Measure Description	Percentage of patients screened for mobility
Site	Primary care
Population Measured	Patients 65+
Measurement Period	Choose week or month (Weekly measurement will support faster testing/learning cycles, at the cost of more measurement effort.)
Denominator	Inclusion: All patients in the population considered to be patients of the primary care practice (e.g., patient assigned to a care team panel and seen by the practice within the past three years) who have an office visit, home visit, or tele-medicine visit with the practice during the measurement period Exclusions: None
Numerator	Inclusion: Patients in the denominator with documentation of a mobility screen within 12 months of the most recent office visit, home visit, or tele-medicine visit Exclusions: None
Data Source	Health records
Method Details/Notes	1. The mobility screen standard should include at minimum: a. Assess mobility status of patient in one of two categories: (a) non-ambulatory; (b) ambulatory. If ambulatory, assess patient with validated tool (e.g., Timed Up & Go (TUG), Performance-oriented Mobility Assessment -Tinetti scale, or a physical therapy evaluation). b. Document assessment in the medical record. (a) If non-ambulatory, document degree of assistance needed. (b) If ambulatory, document results from assessment tool. 2. Based on clinical judgment, patients may be screened more frequently than once every 12 months.

Appendix 3: Tables of Medications

The tables POLY-ACH-A, COB-A, and COB-B together represent the target list of medications in the measure 'Patients on targeted medications'.

Table POLY-ACH-A: Anticholinergic Medications (from PQA Measure *Polypharmacy: Use of Multiple Anticholinergic Medications in Older Adults (POLY-ACH)*)

Antihistamines		
• brompheniramine • carbinoxamine • chlorpheniramine • clemastine • cyproheptadine	• dexbrompheniramine [a] • dexchlorpheniramine • dimenhydrinate • diphenhydramine (oral)	• doxylamine • hydroxyzine • meclizine • triprolidine
Antiparkinsonian Agents		
• benztropine	• trihexyphenidyl	
Skeletal Muscle Relaxants		
• cyclobenzaprine	• orphenadrine	
Antidepressants		
• amitriptyline • amoxapine • clomipramine • desipramine	• doxepin (>6 mg/day) • imipramine • nortriptyline	• paroxetine • protriptyline • trimipramine
Antipsychotics		
• chlorpromazine • clozapine • loxapine	• olanzapine • perphenazine	• thioridazine • trifluoperazine
Antiarrhythmic		
• disopyramide		
Antimuscarinics (urinary incontinence)		
• darifenacin • fesoterodine • flavoxate	• oxybutynin • solifenacin	• tolterodine • trospium
Antispasmodics		
• atropine (excludes ophthalmic and injectable) • belladonna alkaloids • clidinium-chlordiazepoxide [a]	• dicyclomine • homatropine (excludes ophthalmic) • hyoscyamine	• propantheline • scopolamine (excludes ophthalmic)
Antiemetic		
• prochlorperazine	• promethazine	

Note (in general – unless otherwise specified): Includes combination products that contain a target medication listed and the following routes of administration: oral, transdermal, injectable (IJ, SC, IM, IV), rectal, sublingual, buccal and inhalation. For combination products that contain more than one target medication, each target medication (active ingredient) should be considered independently.

a. Chlordiazepoxide is not a target medication as a single drug.

Source: Medications in this table are from Table 7 of the American Geriatric Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults. After the release of the AGS 2018 Updated Beers Criteria, we expect this table to be slightly modified, with the addition of a small number of medications.

Table COB-A: Opioids [a,b] (from PQA Measure *Concurrent Use of Opioids and Benzodiazepines (COB)*)

Opioids		
• buprenorphine [c] • butorphanol • codeine • dihydrocodeine • fentanyl • hydrocodone	• hydromorphone • levorphanol • meperidine • methadone • morphine • opium	• oxycodone • oxymorphone • pentazocine • tapentadol • tramadol

[a] Excludes injectable formulations.
[b] Includes prescription opioid cough medications.
[c] Excludes single-agent and combination buprenorphine products used to treat opioid use disorder (i.e., buprenorphine sublingual tablets, Probuphine® Implant kit subcutaneous implant, and all buprenorphine/naloxone combination products).

Table COB-B: Benzodiazepines [a] (from PQA Measure *Concurrent Use of Opioids and Benzodiazepines (COB)*)

Benzodiazepines		
• alprazolam • chlordiazepoxide • clobazam • clonazepam • clorazepate	• diazepam • estazolam • flurazepam • lorazepam • midazolam	• oxazepam • quazepam • temazepam • triazolam

[a] Excludes injectable formulations.

Appendix 4: A Balancing Measure

Impact on the Care Team: An informal qualitative measure

Balancing measures detect unintended consequences of new interventions. This balancing measure assesses the impact of 4M care on the care team. The care team needs to know whether or not their approach to assessing and acting on the 4Ms is feasible in the short term and sustainable over the long term.

For example:

- Does engaging older adults in "What Matters" conversations cause stress to certain team members?
- Does the task of documentation create a burden?
- Does acting on what is learned from the assess stage fall short too often?

Too much stress or burden leads to inconsistent engagement in providing care consistent with the 4Ms and can contribute to staff burnout.

You don't need a formal survey or questionnaire to learn about work burden and barriers to reliable care consistent with the 4Ms.

Leaders should instead commit to regularly asking care team members, once a month, two questions:

1. What are we doing well in providing care consistent with the 4Ms?
2. What could we do better to provide care consistent with the 4Ms?

Tips for Using the Two Questions

- To encourage care team members to continue to respond to the two questions, it is critical to show that leaders are listening to their responses and acting on them. One approach is to engage the team in testing one or more ideas and discuss together what was learned, with the aim to make the 4M work easier.
- If the question responses are collected during a team huddle or meeting and recorded on a flip chart or whiteboard, take a digital photo so there is a time-stamped record.