Age-Friendly Health Systems:

Guide to Using the 4Ms in the Care of Older Adults in Hospitals and Ambulatory Care Practices

Fall 2022
ihi.org/AgeFriendly
Acknowledgments

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Thank you to the five prototype health systems — Anne Arundel Medical Center, Ascension, Kaiser Permanente, Providence, and Trinity Health— for stepping forward to learn what it takes to become an Age-Friendly Health System.

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Contents

Age-Friendly Health Systems Overview 4
Putting the 4Ms into Practice 7
Appendix A: Process Walk-Through: Know the 4Ms in Your Health System 23
Appendix B: Key Actions and Getting Started with Age-Friendly Care 27
Appendix C: Becoming Recognized as an Age-Friendly Health System Participant and Committed to Care Excellence 38
Appendix D: Age-Friendly Care Workflow Examples 47
Appendix E: Examples of PDSA Cycles for Age-Friendly Care 52
Appendix F: Implementing Reliable 4Ms Age-Friendly Care 58
Appendix G: Measuring the Impact of 4Ms Age-Friendly Care 59
References 56
Age-Friendly Health Systems Overview

The United States is aging. The number of older adults — that is, individuals ages 65 years and older — is growing rapidly. As we age, care often becomes more complex. Health systems are frequently unprepared for this complexity, and older adults suffer a disproportionate amount of harm while in the care of the health system.

To address these challenges, in 2017, The John A. Hartford Foundation (JAHF) and the Institute for Healthcare Improvement (IHI), in partnership with the American Hospital Association (AHA) and the Catholic Health Association of the United States (CHA), set a bold vision to build a social movement so that all care with older adults is age-friendly care.

According to our definition, age-friendly care:

- Follows an essential set of evidence-based practices;
- Causes no harm; and
- Aligns with What Matters to the older adult and their family or other caregivers.

Becoming an Age-Friendly Health System entails reliably providing a set of four evidence-based elements of high-quality care, known as the “4Ms,” to all older adults in your system. When implemented together, the 4Ms represent a broad shift by health systems to focus on the needs of older adults (see Figure 1).

The Age-Friendly Health Systems movement now comprises more than 2,700 hospitals, practices, convenient care clinics, and nursing homes (including post-acute and long-term care settings — e.g., skilled nursing and rehabilitation facilities and nursing facilities) working to reliably deliver evidence-based care with and for older adults. IHI and JAHF celebrate the participation of organizations that have committed to practicing age-friendly 4Ms care. Learn more about how you can join the movement and show your commitment to better care for older adults at ihi.org/AgeFriendly.
The 4Ms — What Matters, Medication, Mentation, and Mobility — make care of older adults, which can be complex, more manageable. The 4Ms identify core issues that should drive decision making in the care of older adults. They organize care and focus on the older adult’s wellness and strengths rather than solely on disease. The 4Ms are relevant regardless of an older adult’s individual disease(s). They apply regardless of the number of functional problems an older adult may have, or that person’s cultural, racial, ethnic, or religious background.1

The 4Ms are a framework, not a program, to guide care of older adults wherever and whenever they come into contact with a health system’s care and services. The intention is to incorporate the 4Ms into existing care, rather than layering them on top, in order to organize the efficient delivery of effective care. This integration is achieved primarily through redeploying existing health system resources. Many health systems have found that they already provide care aligned with one or more of the 4Ms for many of their older adult patients. Much of the effort, then, involves incorporating the other elements and organizing care so that all 4Ms guide every encounter with an older adult and their family or other caregivers.
4Ms Framework: Not a Program, But a Shift in Care

- The 4Ms Framework is not a program, but a shift in how we provide care to older adults.
- The 4Ms are implemented together (i.e., all 4Ms as a set of evidence-based elements of high-quality care for older adults).
- Your system probably practices at least a few of the 4Ms in some places, at some times. Engage existing champions for each of the 4Ms, build on what you already do, and spread it across your system.
- The 4Ms must be practiced reliably (i.e., for all older adults, in all settings and across settings, in every interaction).

There are two key drivers of age-friendly care (see Figure 2): knowing about the 4Ms for each older adult in your care (“assess”), and incorporating the 4Ms into care delivery and documenting them in the care plan (“act on”) (see Figure 2). Both must be supported by documentation and communication across settings and disciplines.

Figure 2. Two Key Drivers of Age-Friendly Health Systems

Developed with our expert faculty and advisors (see faculty and advisors) and five pioneering health systems — Anne Arundel Medical Center, Ascension, Kaiser Permanente, Providence, and Trinity Health — this Guide to Using the 4Ms in the Care of Older Adults is designed to help care teams test and implement a specific set of evidence-based best practices that correspond to each of the 4Ms. Though the practices of assessing and acting on the 4Ms are similar in most care settings, there are some differences. This Guide begins by outlining the 4Ms for hospital-based and ambulatory/primary care-based settings and then provides practical guidance for implementation.
Putting the 4Ms into Practice

The 4Ms as a set may be integrated into care by following six steps:

1. Understand your current state
2. Describe care consistent with the 4Ms
3. Design or adapt your workflow to deliver care consistent with the 4Ms
4. Provide care consistent with the 4Ms
5. Study your performance
6. Improve and sustain care consistent with the 4Ms

While we present the six steps as a sequence, in practice you can approach steps 2 through 6 as a loop aligned with Plan-Do-Study-Act cycles (see Figure 3).

Figure 3. Integrating the 4Ms into Care Using the PDSA Cycle
Step 1. Understand Your Current State

The aim of an Age-Friendly Health System is to reliably apply the two key drivers of age-friendly care: assess and act on the 4Ms with all older adults. Almost all systems integrate some of the 4Ms into care, some of the time, with some older adults, in some place in their system. With an understanding of your current experience and capacity to engage in 4Ms care, you can build on that good work until the 4Ms are reliably practiced with all older adults.

The following steps help you prepare for your journey to becoming an Age-Friendly Health System by understanding your current state — knowing the older adults and the status of the 4Ms in your health system currently — and then selecting a care setting and establishing a team to begin testing.

Know the Older Adults in Your Health System

Estimate the number of adult patients served in each age group in the last month (see Table 1).

Table 1. Adult Patients Served in the Last Month (by Age Group)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number</th>
<th>Percent of Total Patients</th>
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<tbody>
<tr>
<td>18–64 years</td>
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<tr>
<td>65–74 years</td>
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<td></td>
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<tr>
<td>75–84 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>85+ years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of Adult Patients</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

For adult patients ages 65 and older, specify their languages, races/ethnicities, religious and cultural preferences, and health literacy levels (see Table 2).
Table 2. Languages, Races/Ethnicities, Religious and Cultural Preferences, and Health Literacy Levels of Patients 65 Years and Older

<table>
<thead>
<tr>
<th>Languages:</th>
<th>Percent of Total Patients Ages 65+</th>
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<table>
<thead>
<tr>
<th>Races/Ethnicities:</th>
<th>Percent of Total Patients Ages 65+</th>
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<tr>
<th>Religious and Cultural Preferences:</th>
<th>Percent of Total Patients Ages 65+</th>
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<table>
<thead>
<tr>
<th>Health Literacy Levels</th>
<th>Percent of Total Patients Ages 65+</th>
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<tbody>
<tr>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
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<tr>
<td>High</td>
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</table>

Know the 4Ms in Your Health System

To identify where the 4Ms are being implemented in your health system, walk through activities as if you were an older adult or family member or other caregiver. In an ambulatory setting, that may include making an appointment for an Annual Wellness Visit, preparing to come to an Annual Wellness Visit, observing an appointment, and understanding who on the care team takes responsibility for each of the 4Ms. In an inpatient setting, go through registration, spend time on a unit, and sit quietly in the hall of a unit. Look for the 4Ms in action. Find bright spots, opportunities, and champions of each of the 4Ms in your system.

- Use the form provided in Appendix A to note what you learn.
- Explore Equity as it Relates to Existing Work

An Age-Friendly Health System is one that provides 4Ms care to all older adults. To ensure that the 4Ms are being provided equitably, we encourage systems to specifically explore what disparities might exist and address them.
through their journey. To start, systems should identify what equity-related activities are already taking place in their organization (may be referred to as "diversity and inclusion") and have a conversation about how to align their efforts to improve outcomes for older adults, especially at the intersection of race, ethnicity, language, sexual orientation, gender identity, and age.

Specifically, systems can explore:

- What work is already underway in your system regarding equity in access and provision of services?
- How are older adults represented in this work?
- What is happening internally to address systemic racism, ageism, and bias?
- What is your capability related to stratifying data by race, ethnicity, and language?

Health equity requires that health systems stratify key performance measures by these factors to reveal disparities and provoke action to eliminate them. For Age-Friendly Health Systems, we encourage stratifying 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. We also encourage participation in the Human Rights Campaign Healthcare Equality Index, which promotes LGBTQ patient-centered care.

**Select a Care Setting to Begin Testing**

Once you know about the older adults in your care and identify where the 4Ms currently exist in your health system, select a care setting in which to begin testing age-friendly interventions. Some questions to consider when selecting a site:

- Is there a setting where a larger number of older adults regularly receive care?
- Is there will at this setting to become age-friendly and improve care for older adults? Is there a champion?
- Is this setting relatively stable (i.e., not undergoing major changes already)?
- Does this setting have access to data? (See the “Study Your Performance” section below for more on measurement.)
- Can this setting be a model for the rest of the organization? (Modeling is not necessary, but can be useful to scale-up efforts.)
- Is there a setting where your team members have experience with the 4Ms either individually or in combination? Do they already have some processes, tools, and/or resources to support the 4Ms?
- Is there a setting where the health literacy levels, language skills, and cultural preferences of your patients match the assets of the staff and the resources provided by your health system?

**Set Up a Team**

- Based on our experience, teams that include certain roles and/or functions, as outlined in Table 3, are most likely to succeed.
### Table 3. Team Member Roles

<table>
<thead>
<tr>
<th>Team Member</th>
<th>Description</th>
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<tbody>
<tr>
<td>An Older Adult and Caregiver</td>
<td>Patients and families or other caregivers bring critical expertise to any improvement team. They have a different experience with the system than providers and can identify key issues. We highly recommend that each team include at least one older adult, and one family member or other caregiver (ideally more than one), or a way to elicit feedback directly from these individuals (e.g., through a Patient and Family Advisory Council). Additional information about appropriately engaging patients and families in improvement efforts can be found in the IHI blog post <a href="https://www.ihi.org">Valuing Lived Experience: Why Science Is Not Enough</a> and on the Institute for Patient- and Family-Centered Care website.</td>
</tr>
</tbody>
</table>
| Leader/Sponsor                                                             | This person champions, authorizes, and supports team activities, as well as engages senior leaders and other groups within the organization to remove barriers and support implementation and scale-up efforts. Although they may not do the “on-the-ground” work, the leader/sponsor is responsible for:  
  - Building a case for change that is based on strategic priorities and the calculated return on investment;  
  - Encouraging the improvement team to set goals at an appropriate level;  
  - Providing the team with needed resources, including staff time and operating funds;  
  - Ensuring that improvement capability and other technical resources, especially those related to data collection and analysis, information technology (IT), and electronic health records (EHRs), are available to the team; and  
  - Developing a plan to scale up successful changes from the improvement team to the rest of the organization. |
| Administrative Partner                                                      | This person represents the disciplines involved in the 4Ms and works effectively with the clinicians, other technical experts, and leaders within the organization. We recommend placing the manager of the unit/clinic where changes are being tested in this role because that individual can likely move nimbly to take necessary action to test and implement the recommended changes in the unit and is invested in sustaining changes that result in improvement. |
| Clinicians who Represent the Disciplines Involved in the 4Ms               | These individuals may include a physician, nurse, physical therapist, social worker, pharmacist, chaplain, and/or others who represent the 4Ms in your context. We strongly encourage interprofessional representation on your team and urge you to enlist more than one clinical champion.  
  These champions should have good working relationships with colleagues and be interested in driving change to achieve an Age-Friendly Health System. Consider professionals who are opinion leaders in the organization, who are sought by others for advice, and who are not afraid to test and implement change. |
**Team Member** | **Description**
--- | ---
Others | • Improvement coach  
• Data analyst/EHR analyst  
• Finance representative  
• Other staff members who interact with older adults (e.g., environmental services)

In addition to this core team, it is often useful to have the following groups:

- Advisory Group – other champions, those who have worked or are working on related efforts, and skeptics who can advise the team, support the effort to stay on track, and champion the effort broadly in the organization.
- Interest Group – those at any level in the organization who have shown interest in care for older adults. Have a regular, consistent time to convene this group for education, discussion, and question-and-answer sessions (e.g., conduct a “lunch and learn” every other Wednesday at 12:00 pm).

### Step 2. Describe Care Consistent with the 4Ms

There are many ways to improve care for older adults. However, there is a specific set of key actions, summarized below, that touch on all 4Ms and dramatically improve care when implemented together (see Table 5). This list of actions is considered the gateway to your journey to becoming an Age-Friendly Health System. In Appendix B you will find a list of these key actions and ways to get started with each one in your setting, as well as additional tips and resources. Be sure to plan how you will document and make visible the 4Ms across the care team and settings.

Using the 4Ms Care Description Worksheet, available at www.IHI.org/AgeFriendly/Recognition, describe a plan for how your system will provide care consistent with the 4Ms. This worksheet helps you to assess, document, and act on the 4Ms as a set, while customizing the approach for your context. To be considered an Age-Friendly Health System, your system must engage or assess people ages 65 and older for all 4Ms, document 4Ms information, and act on the 4Ms accordingly. As you test the 4Ms, you may make updates to your Care Description based on what you learn about the tools and methods that work best in your context.
Questions to consider:

- How does your current state compare to the actions outlined in the 4Ms Age-Friendly Care Description Worksheet?
- Which of the 4Ms do you already incorporate? How reliably are they practiced?
  - For example: Do you already ask and document What Matters, review for high-risk medication use; screen for delirium, dementia, and depression; and screen for mobility for each older adult? How reliably are these steps completed? Can you find this information for each older adult in your care for the past week? For the past month?
- Where are there gaps in your processes to assess, document, and act on the 4Ms? What ideas do you have to fill the gaps? Some ideas for how to get started filling those gaps are provided in Appendix B. In this step, describe the initial plan for 4Ms care for the older adults you serve.

Set an Aim

Given your current state, set an aim for this initial effort. An aim articulates what you are trying to accomplish — what, how much, by when, for whom. It serves as the focus for your team’s work and enables you to measure your progress. Below is an aim statement template that requires you to think about the reach of 4Ms. We suggest starting with what you want to accomplish in the next six months.

**Aim Statement Template**

By [DATE], [NAME OF ORGANIZATION] will articulate how it operationalizes 4Ms care and will have provided that 4Ms care equitably for [NUMBER] of patients 65+ years old.
Step 3. Design or Adapt Your Workflow

After review of your system, you may discover many 4Ms practices already in place. These you can maintain, improve, and expand where necessary. You will likely also discover other ideas you still need to test and implement. The subsequent steps provide guidance for testing and implementing. The key is to ensure that these practices are reliable — happening every time in every setting for every older adult (and their caregivers).

In this guide, we use terms such as “screening,” “assessment,” and “staging” to describe the purpose of a particular tool or process. See Appendix I for definitions for these terms as they relate to Age-Friendly Health Systems.

Table 4. Age-Friendly Health Systems Summary of Key Actions

<table>
<thead>
<tr>
<th>Assessed</th>
<th>Acted On</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know about the 4Ms for each older adult</td>
<td>Incorporate the 4Ms into care delivery and document in the care plan</td>
</tr>
</tbody>
</table>

**Hospital**

<table>
<thead>
<tr>
<th>Key Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ask the older adult What Matters, including their health outcome goals and care preferences</td>
</tr>
<tr>
<td>• Document What Matters</td>
</tr>
<tr>
<td>• Review all medications</td>
</tr>
<tr>
<td>• Identify and document high-risk and potentially inappropriate medication use</td>
</tr>
<tr>
<td>• Screen for delirium at least every 12 hours and with any change in function or behavior</td>
</tr>
<tr>
<td>• If staff or caregivers report cognitive or behavioral changes, complete Mini-Cog© screen</td>
</tr>
<tr>
<td>• Screen for mobility limitations</td>
</tr>
<tr>
<td>• Align the care plan with What Matters</td>
</tr>
<tr>
<td>• Deliver care according to What Matters, including the older adult’s health outcome goals and care preferences</td>
</tr>
<tr>
<td>• Deprescribe (includes dose reduction and medication discontinuation)</td>
</tr>
<tr>
<td>• Avoid prescribing high-risk and potentially inappropriate medications</td>
</tr>
<tr>
<td>• Consult pharmacist</td>
</tr>
</tbody>
</table>
| • Prevent delirium  
  ○ Ensure sufficient oral hydration  
  ○ Orient to time, place, and situation (validation and orienting cues if they have dementia)  
  ○ Ensure that older adults have their personal adaptive equipment and sensory devices for hearing and vision  
  ○ Avoid high-risk medication that may cause delirium  
  ○ Prevent sleep interruptions; use nonpharmacological interventions to support sleep |
| • Treat delirium  
  ○ If delirium occurs, continue with hydration, safe mobility, and good sleep practice and use best practice guidelines for delirium treatment, including avoiding medications (there is no approved medication for delirium treatment as of 2022, and most medications worsen delirium), search for a cause of the delirium, keep mobile and safe to avoid complications that are common in delirium, restore function and discharge |
<table>
<thead>
<tr>
<th>Ambulatory</th>
<th>Key Actions (to occur at least annually or after change in condition):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Ask the older adult What Matters including their health outcome goals and care preferences</td>
</tr>
<tr>
<td></td>
<td>• Document What Matters, including their health outcome goals and care preferences</td>
</tr>
<tr>
<td></td>
<td>• Review all medications</td>
</tr>
<tr>
<td></td>
<td>• Identify and document high-risk and potentially inappropriate medication use</td>
</tr>
<tr>
<td></td>
<td>• Screen for dementia/cognitive impairment</td>
</tr>
<tr>
<td></td>
<td>• For older adults with an established diagnosis of dementia, consider using a staging tool</td>
</tr>
<tr>
<td></td>
<td>• Screen for depression</td>
</tr>
<tr>
<td></td>
<td>• Screen for mobility limitations</td>
</tr>
<tr>
<td></td>
<td>• Align and provide care according to What Matters, including their health outcome goals and care preferences</td>
</tr>
<tr>
<td></td>
<td>• Educate older adults and caregivers about age-friendly medications</td>
</tr>
<tr>
<td></td>
<td>• Deprescribe (includes both dose reduction and medication discontinuation)</td>
</tr>
<tr>
<td></td>
<td>• If screen is positive for cognitive impairment, refer to primary care physician or specialist for full work-up.</td>
</tr>
<tr>
<td></td>
<td>• If depression screen is positive, refer to primary care physician or specialist for full work-up</td>
</tr>
<tr>
<td></td>
<td>• Educate older adult and caregivers about safe mobility; manage impairments that reduce mobility; ensure safe home environment for mobility; identify and set a daily mobility goal; avoid high-risk medications; refer to physical therapy</td>
</tr>
</tbody>
</table>

- teaching, educate family or care partners to prevent future delirium
- If assessment suggests possible cognitive impairment, consider further work-up or geriatric consultation; refer to primary care provider or specialist for full work-up post-hospitalization.
- Mobilize three times a day or as directed by clinical team
- Facilitate patient getting out of bed or leaving room for meals
- Initiate physical therapy intervention, if appropriate
- Avoid restraints (physical or chemical)
- Remove catheters and other tethering devices
Supporting actions:

- Use the 4Ms to organize care and focus on the older adult, wellness, and strengths rather than solely on disease or lack of functionality.
- Integrate the 4Ms into care or existing workflows whenever possible.
- Identify which activities you can stop doing to reallocate resources to reliably practice the 4Ms.
- Document all 4Ms and consider grouping the 4Ms together in the medical record. Find ways to highlight What Matters in the record and care plan as a way to guide care.
- Make the 4Ms visible across the care team and settings.
- Form an interdisciplinary care team that reviews the 4Ms in daily huddles and/or rounds.
- Educate older adults, caregivers, and the community about the 4Ms.
- Link the 4Ms to community resources and supports to achieve improved health outcomes.

Overall, look for opportunities to combine or redesign activities, processes, and workflows around the 4Ms. In this effort you may find that you can stop certain activities and reallocate resources to support age-friendly care.

If you have process flow diagrams or value-stream maps of your daily care, edit these views of your workflow to include the key actions above and your description of age-friendly care.

You may start with a high-level workflow like the examples shown below (see Figures 4 and 5).

**Figure 4. Age-Friendly Care Workflow Example for Hospitals: Core Functions**

**Figure 5. Age-Friendly Care Workflow Example for Primary Care: Core Functions for New Patient, Annual Visit, or Change in Health Status**

Then work through the details in the space below each high-level block to show how you will incorporate the 4Ms. Be specific about who will do what, where, when, how, and how it will be documented. Examples are included in Appendix E.

Outline what you still need to learn and identify what you will test (e.g., using the Timed Up & Go Test to evaluate mobility and fall risk).
Step 4. Provide Care

Learn as you move toward reliable 4Ms care. Begin to test the key actions with one older adult and their family or other caregivers as soon as you have notes for Step 2, Describe Care Consistent with the 4Ms, and Step 3, Design or Adapt Your Workflow. Do not wait to have your forms or EHR screens finalized before you test with one older adult. Use the Plan-Do-Study-Act (PDSA) tool to learn more from your tests. Then, scale up your tests. For example:

- Apply your draft standard procedure and workflow first with one patient. Can your team follow the procedure in your work environment?
- If necessary, modify your procedure. Then, apply it with five patients. What lessons do you learn from applying 4Ms care with these patients? What impact does learning about all 4Ms have on care plans?
- If necessary, modify your procedure. Then, apply with 25 patients and keep going. Are you getting close to being able to use your procedure for every patient? Are you getting good results?
- Examples of PDSA cycles can be found in Appendix F.

Step 5. Study Your Performance

How reliable is your 4Ms care? What impact does your 4Ms care have? Here is an approach to study your performance.

Observe and Seek to Understand

Observe: Start your study with direct observation of your draft 4Ms Care Description in action.

- Can your team follow the Care Description and successfully assess and act on the 4Ms with older adults?
- Do care plans reflect 4Ms care?

In the first month, do this for at least one patient each week. Then, for the next six months, observe 4Ms care for at least five patients each month.

Ask Your Team: At least once per month for the first six months of your efforts, ask your team two open-ended questions and reflect on the answers:

- What are we doing well to assess and act on the 4Ms?
- What do we need to change to translate the 4Ms into more effective care?
Plan with your team how and when you will continue to reflect together using open-ended questions on an ongoing basis.

Ask Older Adults and Caregivers: At least once in the first month of your effort, ask an older adult and family or other caregiver two open-ended questions and reflect on the answers:

- What went well in your care today?
- What could we do better to understand what age-friendly care means to you?

Then try the questions with five additional older adults in the second month. Plan with your team how and when you will continue to talk with older adults using open-ended questions on an ongoing basis. Consider engaging one or more older adults as a member of the team that is working to adopt the 4Ms.

**Measure How Many Patients Receive 4Ms Care**

There are three options to start measuring the number of patient encounters that include 4Ms care. We recommend Option 1 because it focuses close attention to the 4Ms work and takes less effort than conducting retrospective chart audits or building a specific EHR report.

**Option 1: Real-Time Observation**

Use real-time observation and staff reporting of the work to tally your 4Ms counts on a whiteboard or paper. An example for patients seen in a primary care clinic might look like the chart below (see Figure 6).
Figure 6. Example of Real-Time Observation in a Primary Care Clinic*

*Delirium screening and assessment required in hospitals but not ambulatory practices.

<table>
<thead>
<tr>
<th>Date</th>
<th>4Ms Care according to our site description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All 4Ms</td>
</tr>
<tr>
<td>Pt ID</td>
<td>if N, check details</td>
</tr>
<tr>
<td>101</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>102</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>103</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>104</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>105</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>106</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>107</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>108</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>109</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>110</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>111</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
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<td>114</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
<tr>
<td>115</td>
<td>Y N Y N Y N Y N Y N Y N Y N</td>
</tr>
</tbody>
</table>

Option 2: Chart Review

If real-time observation is not feasible, consider a sampling strategy using chart review. Using a tally sheet like the example discussed in Option 1, review charts for evidence of 4Ms care. At the start of your work to test implementing the 4Ms:

- Review charts of older adults with whom you have tested (i.e., intended to provide) 4Ms care in a particular time period to confirm proper documentation of 4Ms care. To estimate the number of older adults receiving 4Ms care in that particular time period (e.g., monthly), randomly sample 20 charts.

- In the 20 sample charts, observe how many older adults received your described 4Ms care (noted as “C” in the calculation below). Example: 100 older adults seen on the unit were eligible to receive 4Ms care this month. Of those 100 older adults, we reviewed 20 charts, and 10 received 4Ms care according to our description. So (10/20) x 100 = 50 older adults received 4Ms care this month (estimated).

- Calculate the approximate number of older adults receiving 4Ms care in the time period as follows:
Option 3: EHR Report

You may be able to run EHR reports, especially on assessment of the 4Ms, to estimate the number of patient encounters that include 4Ms care in a particular time period. It may take a lot of effort to create a suitable report, so we do not recommend this option as your first choice. However, for ongoing process control, some organizations may wish to develop reports that show 4Ms performance; you can request report development from your IT service while starting with Option 1 or 2.

Routine Counting of Patients

Once your site provides 4Ms care with high reliability (see Appendix G), then the estimate of the number of patient encounters that include 4Ms care is tantamount to the volume of patients receiving care from your site during the measurement period.

Additional Measurement Guidance and Recommendations

The tables below provide additional guidance for counting the number of patients receiving 4Ms care. (See the Age-Friendly Health Systems: Measures Guide for guidance about recommended process, outcome, and balancing measures to inform age-friendly care.)

<table>
<thead>
<tr>
<th>Hospital Site of Care</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Measure Name</strong></td>
<td>Older Adults Receiving Age-Friendly (4Ms) Care</td>
</tr>
<tr>
<td><strong>Measure Description</strong></td>
<td>Number of patients 65 years and older who receive 4Ms care as described by the hospital</td>
</tr>
<tr>
<td><strong>Site</strong></td>
<td>Hospital unit, hospital, or set of hospitals</td>
</tr>
<tr>
<td><strong>Population Measured</strong></td>
<td>Patients 65 years and older</td>
</tr>
<tr>
<td><strong>Measurement Period</strong></td>
<td>Monthly</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>Inclusion: All patients 65 years and older with length of stay (LOS) greater than or equal to 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</td>
</tr>
</tbody>
</table>

Estimated number of older adults receiving 4Ms care =

\[(C \div 20) \times \text{Total number of older adults eligible for 4Ms care}\]
## 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 4Ms care for your unit. To be considered age-friendly (4Ms) care, you must engage or screen all patients 65 years and older 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 number of patient encounters using 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 medical record number (MRN).

### Ambulatory/Primary Care Site of Care

<table>
<thead>
<tr>
<th>Measure Name</th>
<th>Older Adults Receiving Age-Friendly (4Ms) Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure Description</td>
<td>Number of patients 65 years and older who receive age-friendly (4Ms) care as described by the measuring unit</td>
</tr>
<tr>
<td>Site</td>
<td>Ambulatory/primary care</td>
</tr>
<tr>
<td>Population Measured</td>
<td>Patients 65 years and older</td>
</tr>
<tr>
<td>Measurement Period</td>
<td>Monthly</td>
</tr>
<tr>
<td>Count</td>
<td>Inclusion: All patients 65 years and older 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 telemedicine visit with the practice during the measurement period and who receive 4Ms care as described by the site.</td>
</tr>
</tbody>
</table>

## Measure Notes

- The measure may be applied to units within a system as well as the entire system. See the 4Ms Age-Friendly 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 years and older 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 number of patient encounters using 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 medical record number (MRN).
See Appendix H for additional recommendations on measuring the impact of 4Ms care.

**Stratify Your Data by Race, Ethnicity and Language**

To ensure that we are providing equitable access to 4Ms care, we encourage teams to stratify their data by race, ethnicity, and language. Based on your exploration in previous steps, you have hopefully discovered what capabilities exist in your system(s) to stratify data by current self-reported categories.

Teams that are new to stratification can start with stratifying one measure that is most reliably collected and work toward stratifying all 4Ms measures being collected.

Examine your data in this way to identify any gaps in care and explore what adjustments to your current processes are required to close these gaps.

**Step 6. Improve and Sustain Care**

For more information about how to sustain your 4Ms care, please see the IHI White Paper Sustaining Improvement.

**Reminder: Integrating the 4Ms as a Cycle**

While we present the steps as a sequence, in practice Steps 2 through 6 are a cycle aligned with the Plan-Do-Study-Act method. As you establish your age-friendly care, you may cycle through these steps many times over the course of several months in order to achieve reliability and then turn your efforts to sustainability and monitoring (quality control) over time.
Appendix A: Process Walk-Through: Know the 4Ms in Your Health System

There are two key drivers to age-friendly care: knowing about the 4Ms for each older adult in your care (“assess”) and incorporating the 4Ms into the plan of care (“act on”). The aim in an Age-Friendly Health System is to reliably assess and act on the 4Ms with all older adults. Just about all systems have integrated some of the 4Ms into care, some of the time, with some older adults, in some places in their systems. The work now is to understand where that is happening and build on that good work so that all 4Ms occur reliably for all older adults in all care settings.

How do you already assess and act on each of the 4Ms in your setting? One way to find out is to spend time in your unit, your practice, or your hospital observing the care. As you do, note your observations in response to the questions below as you learn more about how the 4Ms are already in practice in your system.

- What are current activities and services related to each of the 4Ms? What processes, tools, and resources to support the 4Ms do we already have in place here or elsewhere in the system?
- Where is the prompt or documentation available in the EHR or elsewhere for all clinicians and the care team? Is there a place to see the 4Ms (individually or together) accessible to all team members? Across settings?
- What experience do your team members have with the 4Ms? What assets do you already have on the team? What challenges have they faced? How have they overcome them?
- What internal or community-based resources do you commonly refer to, and for which of the 4Ms? For which of the 4Ms do you need additional internal and/or community-based resources?
- Do your current 4Ms activities and services appear to be having a positive impact on older adults and/or family or other caregivers? Do you have a way to hear about the older adults’ experience?
- Do your current 4Ms activities and services appear to be having a positive impact on clinicians and staff?
- Which languages do older adults and their family or other caregivers speak? Read?
- Do the health literacy levels, language skills, and cultural preferences of older adults match the assets of your team and the resources provided by your health system?
- What activities are taking place in your organization related to equity (may be called “diversity and inclusion”) and how are older adults represented in this work?
- What works well?
- What could be improved?
<table>
<thead>
<tr>
<th>4Ms</th>
<th>Specifically, Look for How Do We...</th>
<th>Current Practice and Observations</th>
</tr>
</thead>
</table>
| What Matters: Know and align care with each older adult's specific health outcome goals and care preferences, including, but not limited to, advance care planning and end of life, across settings of care. | • Ask the older adult What Matters most, including each person’s health outcome goals and care preferences, using previously validated questions or tools, document the answers, and share What Matters across the care team.  
• Align and provide care according to What Matters to each older adult, including each person’s health outcome goals and care preferences.  
• Adapt the What Matters process based on language, culture, or other patient factors to ensure that it aligns to the needs of all patients. |  |
| Medication: If medication is necessary, use age-friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care. | • Review all medications.  
• Identify and document high-risk and potentially inappropriate medication use.  
• Deprescribe (includes dose reduction and medication discontinuation)  
• Understand any variations in prescribing through stratification by race and ethnicity. |  |
| Mentation: Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care. | Hospital:  
• Screen for delirium at least every 12 hours and document the results.  
• Ensure sufficient oral hydration.  
• Orient to time, place, and situation (validation and orienting cues if they have dementia).  
• Ensure that older adults have their personal adaptive equipment.  
• Avoid high-risk medication that may cause delirium.  
• Prevent sleep interruptions; use nonpharmacological interventions to support sleep.  
• Treat delirium with hydration, safe mobility, and good sleep practice, following best practice guidelines, including avoiding medications (there is no approved medication for delirium treatment as of 2022, and most medications worsen delirium), |  |
<table>
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<tr>
<th>4Ms</th>
<th>Specifically, Look for How Do We...</th>
<th>Current Practice and Observations</th>
</tr>
</thead>
</table>
|     | search for a cause of the delirium, keep the older adult mobile and safe to avoid complications that are common in delirium, restore function, and educate family and care partners to prevent future delirium.  
  • Provide screening and follow-up for patients exhibiting signs or symptoms of dementia or cognitive impairment.  
  Ambulatory Practice:  
  • Screen for cognitive impairment and document the results.  
  • If cognitive impairment screen is positive, refer for further evaluation, rule out reversible causes, and manage manifestations of cognitive impairment including support and/or referrals for living with dementia for the person with dementia and the care partner.  
  • Provide support to people with an established diagnosis of dementia according to stage of disease.  
  • Take steps to mitigate any stigma related to cognitive impairment.  
  • Screen for depression and document the results.  
  • If depression screen is positive, identify and manage factors contributing to depression, and initiate, or refer out for, treatment.  
|     | Hospital  
  • Screen for mobility limitations and document the results.  
  • Mobilize three times a day or as directed by the clinical team.  
  • Facilitate patient getting out of bed or leaving room for meals, therapy, or activities.  
  • Initiate physical therapy intervention, if appropriate.  
  • Avoid restraints (physical or chemical).  
  • Remove catheters and other tethering devices, if appropriate.  
  • Assess for medications that may limit mobility  
<p>| Mobility: Ensure that each older adult moves safely every day in order to maintain function and do What Matters. |</p>
<table>
<thead>
<tr>
<th>4Ms</th>
<th>Specifically, Look for How Do We...</th>
<th>Current Practice and Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Understand any variations in assessing and acting on Mobility through stratification by race and ethnicity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambulatory Practice</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Educate older adults and caregivers about safe mobility.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manage mobility challenges.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Ensure safe home environment for mobility.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Identify and set a daily mobility goal.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Avoid high-risk medications.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Refer to physical therapy, if appropriate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Understand any variations in assessing and acting on Mobility through stratification by race and ethnicity.</td>
<td></td>
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</table>
### Appendix B: Key Actions and Getting Started with Age-Friendly Care

<table>
<thead>
<tr>
<th>Assess: Know about the 4Ms for Each Older Adult in Your Care</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
</table>
| **Ask the older adult What Matters**                        | Giving patients an opportunity to share their fears and concerns about their health and about being in the hospital helps you tailor treatment and education to help address these concerns.  
"What concerns you most when you think about your health, including your cancer and its treatment?"  
Or:  
"What fears and worries do you have about your health, including your cancer and its treatment?"  
Identifying a desired outcome that patients want to achieve through treatment or being in the hospital helps to align care with what matters most to each person.  
"What outcome do you most want from being in the hospital?"  
"What would you most like to be able to do as a result of being in the hospital?"  
For older adults with advanced or serious illness, consider:  
"What are your most important goals if your health situation worsens?"² | **Tips**  
- This action focuses clinical encounters, decision making, and care planning for What Matters to the older adult.  
- Consider segmenting your population by healthy older adults, those with chronic conditions, those with serious illness, and individuals at the end of life. How you ask What Matters to each segment may differ.  
- Knowing What Matters has two purposes. One is getting to know the person, which helps provide better care. Ask questions such as, "What is a good day for you?"; "Who is important to you?"; "What brings you joy?"; "What makes life worth living?" The second purpose is to align care with What Matters. The desired outcomes and fears, concerns, and questions are useful to know in the hospital setting.  
- Review the "How to Have Conversations with Older Adults About ‘What Matters’: A Guide for Getting Started" and check the resources listed below. Then select one of these approaches to identifying What Matters to use with older adults who are healthy or have chronic conditions and one to use with older adults with serious illness or who are near the end of life.  
- Responsibility for asking What Matters can rest with any member of the care team; however, one person needs to be identified as responsible to ensure it is reliably done.  
- You may decide to include family members or other caregivers in a discussion about What Matters; however, it is important to also ask the older adult individually.  
- Ask people with dementia What Matters. Ask people with delirium What Matters at a time when they are suffering least from delirium symptoms.  
- Consider what variations might be required in the approach to What Matters based on race, ethnicity, and language.  
- Leverage What Matters conversations to hear the voices and wishes of traditionally marginalized older adults. | **Resources**  
- "What Matters” to Older Adults?: A Toolkit for Health Systems to Design Better Care with Older Adults  
- "How to have Conversations with Older Adults About ‘What Matters’: A Guide for Getting Started" |
## Assess: Know about the 4Ms for Each Older Adult in Your Care

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
</table>
| Document What Matters | Documentation can be on paper, on a whiteboard, or in the electronic health record (EHR), where it is accessible to the whole care team across settings. ³ | • The Conversation Project and "Conversation Ready"
• Patient Priorities Care
• Serious Illness Conversation Guide
• "What Matters to You?" Instructional Video and A Guide to Having Conversations about What Matters (BC Patient Safety & Quality Council) |

We recognize that members of different groups have diverse needs. There are resources available that are specific to various communities. For example, the following resources can help to integrate an LGBTQ lens into this action:

• Caregiving in the LGBT Community: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=883](https://www.lgbtagingcenter.org/resources/resource.cfm?r=883)
• Create Your Care Plan: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=879](https://www.lgbtagingcenter.org/resources/resource.cfm?r=879)
• My Personal Directions: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=916](https://www.lgbtagingcenter.org/resources/resource.cfm?r=916)
• Advocating for Yourself: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=950](https://www.lgbtagingcenter.org/resources/resource.cfm?r=950)
• Supporting LGBT People Living with Dementia: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=967](https://www.lgbtagingcenter.org/resources/resource.cfm?r=967)
• Issue Brief: LGBT People and Dementia: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=945](https://www.lgbtagingcenter.org/resources/resource.cfm?r=945)
• Inclusive Services for LGBT Older Adults: A Practical Guide to Creating Welcoming Agencies: [https://www.lgbtagingcenter.org/resources/resource.cfm?r=487](https://www.lgbtagingcenter.org/resources/resource.cfm?r=487)

• Tips
  • Convert whiteboards to What Matters boards and include information about the older adults (e.g., what name they like to be called, the pronouns they use, favorite foods, favorite activities, what concerns or upsets them, what soothes them, assistive devices, the names and phone numbers of family members or other caregivers, and their desired goals and outcomes of the hospitalization). Identify who on the care team is responsible for ensuring that the information is updated.
  • Identify where health and health care goals and priorities can be captured in your EHR and available across care teams and settings.
## Assess: Know about the 4Ms for Each Older Adult in Your Care

<table>
<thead>
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<th>Key Actions</th>
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</tr>
</thead>
</table>
| Review for high-risk and potentially inappropriate medication use | Specifically, look for:  
- Benzodiazepines  
- Opioids  
- Highly anticholinergic medications (e.g., diphenhydramine)  
- All prescription and over-the-counter sedatives and sleep medications  
- Muscle relaxants  
- Tricyclic and other antidepressants  
- Antipsychotics 
- Mood stabilizers | • Consider documentation of What Matters to the older adult on paper that they can bring to appointments and other sites of care.  
• Review What Matters documentation across older adult patients to ensure they are specific to each person (i.e., watch out for generic or the same answers across all patients, which suggests that a deeper discussion of What Matters is warranted).  

**Resources**  
- All About Me Board: Do you know your patient? Knowing individuals with dementia combined with evidence-based care promotes function and satisfaction in hospitalized older adults.  

**Tips**  
• If you decide to limit the number of medications to focus on, identify those most frequently dispensed in your hospital or unit, or those for which there is a champion to deprescribe.  
• Target medications that:  
  o Are without indication  
  o Have not had the intended response  
  o Are no longer needed  
  o Duplicate effects – benefit and harm  
  o Are not being taken and adherence is not critical  

**Resources**  
- American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults  
- AGS 2019 Beers Criteria® Pocketcard  
- STOPP (Screening Tool of Older Persons' Prescriptions) and START (Screening Tool to Alert to Right Treatment)  
- Reducing Inappropriate Medication Use by Implementing Deprescribing Guidelines |
### Assess: Know about the 4Ms for Each Older Adult in Your Care

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</table>
| Screen for delirium at least every 12 hours | If you do not have an existing tool, try using the [Ultra-Brief Confusion Assessment Method](#). | Tips  
- Decide on the evidence-informed tool that best fits your care team culture.  
- Train staff at least annually in delirium screening competency as the accuracy falls if not done correctly.  
- Be aware that low prevalence rates of delirium before the 4Ms are in place may indicate inaccurate use of a screening or assessment tool.  
- It is critical to use any tool only as instructed and to do ongoing training (yearly competency) to make sure it is being used correctly.  
- Also critical is pairing any screening/assessment with prevention and best practice treatment of the behaviors that may occur with delirium. Behavior is a form of communication.  
- Share with older adults and family caregivers that being in the hospital puts the older adults at risk of experiencing delirium. So, it is important to understand their brain health while in the hospital, and it needs to be assessed regularly like blood pressure and other vital signs. Establish a relationship with the older adult to put them at ease using a nonjudgmental approach that increases comfort with the screening (e.g., “These are routine tests and an important part of your health care. Just do your best.”).  
- Ask questions in a way that emphasizes the older adult’s strengths (e.g., “Please tell me the day of the week” rather than “Do you know what day it is today?”).  
- Be prepared to train and support providers who are uncomfortable with testing or have the desire to cue the older adult because they “feel bad” when the older adult gets it wrong.  
- Educate family members or other caregivers on the signs of delirium and enlist their support to alert the care team to any changes as soon as they notice them. Ask them if their loved one seems “like themselves.”  
- Document mental status in the chart to measure changes shift-to-shift.  
- Until ruled out, consider a change in mental status to be delirium and raise awareness among the care team and family members or other caregivers about the risk of delirium superimposed on dementia.  
- Note: Delirium has an underlying cause and is preventable and treatable in most cases. Care teams need to take a multi-pronged approach:  
  1. Remove or treat underlying cause(s)  
     - Most common causes to consider: Medications (anticholinergic), infections (urinary tract infection, respiratory), dehydration, electrolyte imbalance, impaired oxygenation, severe pain, sleep deprivation  
  2. Manage and understand delirium behaviors  
  3. Restore or maintain cognitive and physical function (mobilize) |
### Assess: Know about the 4Ms for Each Older Adult in Your Care

<table>
<thead>
<tr>
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</tr>
</thead>
</table>
| Screen for dementia/cognitive impairment | If you do not have an existing tool, try using the **MiniCog**<sup>8</sup> If screen is positive, refer to primary care physician or specialist for further assessment. | • Understand how screening for Mentation might be viewed in different cultures and ensure culturally appropriate support for older adults and their caregivers. Resources  
- [Confusion Assessment Method (CAM)](https://www.who.int/paleo/mortality/mortality_database/en/)  
- [UB-CAM app](https://www.ubc-cam.com/)  
- [Nursing Delirium Screening Scale (Nu-DESC)](https://www.ubc-cam.com/nudec)  
- [Network for Investigation of Delirium (NIDUS)](https://deliriumnetwork.org)  
- [ICUdelirium.org](https://www.icudelirium.org)  
- [American Delirium Society](https://www.american-delirium.org)  
- [Delirium in Older Persons: Advances in Diagnosis and Treatment](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6091643/)  
- [The Evaluation and Management of Delirium Among Older Persons](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6091643/) — Includes an example of a restraint-free, nonpharmacologic management approach called the TA-DAA approach (tolerate, anticipate, don't agitate, and ambulate)  
- [Age Friendly - Providing Delirium Prevention in Age-Friendly Care](https://www.agefriendy.org) |
| Screen for mobility limitations | If you do not have an existing tool, try using **Timed Up & Go (TUG)**<sup>9,10</sup> | • Promote comfort during cognitive screening with patients. For example, say “I’m going to check your brain health like we check your blood pressure, or your heart and lungs.”  
• Emphasize an older adult’s strengths when screening and document it so that all providers have a baseline cognitive screen. Resources  
- [Saint Louis University Mental Status (SLUMS) Exam](https://www.slu.edu/healthsciences/psychiatry/mentalscreening)  
- [Montreal Cognitive Assessment (MoCA)](https://montrealcogic.com) |

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<sup>8</sup> Mini-Cog: A Brief Screening Tool for Cognitive Impairment, available at [Mini-Cog](https://www.minicog.com)  
<sup>9</sup> Timed Up & Go: A Practical Test of Basic Mobility, available at [Timed Up & Go](https://www.who.int/paleo/mortality/mortality_database/en/)  
<sup>10</sup> TUG: Timed Up and Go Test, available at [Timed Up & Go](https://www.who.int/paleo/mortality/mortality_database/en/)
## Assess: Know about the 4Ms for Each Older Adult in Your Care

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
</table>
| Select and use a tool that assesses distance and frequency of mobility in the hospital, such as Johns Hopkins Highest Level of Mobility Scale. | • Underscore that a mobility screen allows the care team to know the strengths of the older adult.  
• You can learn a lot about a person’s mobility by observing them turning over in bed, getting in and out of bed and a chair, and walking to bathroom. It doesn’t have to take extra time. Rather, get into the habit of observing and interpreting older adults’ movements.  
• Have a walker on hand in case needed. A gait belt may be helpful as well. |
| Resources | • Johns Hopkins – Highest Level of Mobility (JH-HLM) Scale  
• Performance-Oriented Mobility Assessment (POMA)¹¹ |
### Act on: Incorporate the 4Ms into the Plan of Care

<table>
<thead>
<tr>
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<th>Getting Started</th>
<th>Tips</th>
</tr>
</thead>
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<td><strong>Align the care plan with What Matters</strong></td>
<td>Incorporate What Matters into the goal-oriented plan of care and align care decisions with the older adult’s goals and preferences(^{12,13,14}) (i.e., What Matters).</td>
<td><strong>Tips</strong>&lt;br&gt;- Health outcome goals are the activities that matter most to an individual, such as babysitting a grandchild, walking with friends in the morning, or continuing to work as a teacher. Health care preferences include the medications, health care visits, testing, and self-management tasks that an individual is able and willing to do.&lt;br&gt;- When you focus on the older adult’s priorities, Medication, Mentation, and Mobility usually come up because addressing them enables people to do more of What Matters to them.&lt;br&gt;- Consider how care while in the hospital can be modified to align with What Matters.&lt;br&gt;- Consider What Matters to the older adult when discussing and making plans for the transition from the hospital.&lt;br&gt;- Use What Matters to develop the care plan and navigate tradeoffs. For example, you may say, “There are several things we could do, but knowing what matters most to you, I suggest we…”&lt;br&gt;- Use the older adult’s priorities (not just diseases) in communicating, decision making, and assessing benefits.&lt;br&gt;- Use collaborative negotiations; agree that there is no best answer and brainstorm alternatives together. For example, you may say, “I know you don’t like the CPAP mask, but are you willing to try it for two weeks to see if it helps you be less tired, so you can get back to volunteering, which you said was most important to you?”&lt;br&gt;- Care options may involve input from many disciplines (e.g., physical therapy, social work, community organizations, and so on). Using patients’ health outcome goals as the target of care for all disciplines puts everyone on the same page. Patients’ goals are the only thing that can integrate the care across disciplines and settings.</td>
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<td><strong>Deprescribe or do not prescribe high-risk or potentially inappropriate medications</strong>&lt;sup&gt;**&lt;/sup&gt;</td>
<td>Specifically avoid or deprescribe the high-risk medications listed below.</td>
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<td>• Benzodiazepines</td>
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<td>• Opioids</td>
<td>• These medications, individually and in combination, may interfere with What Matters, Mentation, and safe Mobility of older adults because they increase the risk of confusion, delirium, unsteadiness, and falls.&lt;sup&gt;20&lt;/sup&gt;</td>
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<td>• Highly anticholinergic medications (e.g., diphenhydramine)</td>
<td>• Deprescribing includes both dose reduction and medication discontinuation. Many medications will need to be tapered off and should not be stopped abruptly (e.g., benzodiazepines).</td>
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<td>• All prescription and over-the-counter sedatives and sleep medications</td>
<td>• Deprescribing is a positive, person-centered approach, requiring informed patient consent, shared decision making, close monitoring, and compassionate support.</td>
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<td>• Muscle relaxants</td>
<td>• When possible, avoid prescribing these high-risk medications (prevention); consider changing order sets in the EHR to change prescribing patterns (e.g., adjust/reduce doses, change medications available).</td>
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<td>• Tricyclic and other antidepressants</td>
<td>• Your institution should have delirium and falls prevention and management protocols that include guidance to avoid high-risk medications.</td>
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<td>• Antipsychotics&lt;sup&gt;15,16,17,18&lt;/sup&gt;</td>
<td>• Offer nonpharmacological options to support sleep and manage pain.</td>
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<td>• Mood stabilizers</td>
<td>• Upon discharge, do not assume that all medications should be sustained. Remove medications the older adult can stop taking upon discharge.</td>
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<td>If the older adult takes one or more of these medications, discuss any concerns the patient may have, assess for adverse effects, and discuss deprescribing with the older adult.&lt;sup&gt;19&lt;/sup&gt;</td>
<td>• Include a medication list printout as part of standard check-out steps and ensure that the older adult and family or other caregivers understand what their medications are for, how to take them, why they are taking them, and how to monitor whether they are helping or possibly causing adverse effects.</td>
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**Resources**
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| **Ensure sufficient oral hydration** | Identify a target amount of oral hydration appropriate for the older adult and monitor to confirm it is met. | - [deprescribing.org](https://deprescribing.org)  
- [Reducing Inappropriate Medication Use by Implementing Deprescribing Guidelines](https://www.ihi.org)  
- [Alternative Medications for Medications Included in the Use of High-Risk Medications in the Elderly and Potentially Harmful Drug–Disease Interactions in the Elderly Quality Measures](https://www.ihi.org)  
- [Crosswalk: Evidence-Based Leadership Council Programs and the 4Ms](https://www.ihi.org)  
- [Effectiveness of Multicomponent Nonpharmacological Delirium Interventions: A Meta-analysis](https://www.ihi.org)  
- [Mitigating the Dangers of Polypharmacy in Community-Dwelling Older Adults](https://www.ihi.org)  
- [Lown Institute: Medication Overload and Older Americans](https://www.ihi.org)  
- [HealthinAging.org](https://www.healthinaging.org) provides expert health information for older adults and caregivers about critical issues we all face as we age  
- Handouts for older adults and family caregivers:  
  - [American Geriatrics Society Health in Aging: Care for Medications](https://www.americangeriatrics.org)  
  - [American Society of Consultant Pharmacists: Printable Fact Sheets](https://www.ascp.org)  
  - [NeedyMeds BeMedWise: Free Printable Resources](https://www.needymeds.org) |
| **Orient older adults to time, place, and situation** | Make sure day and date are updated on the whiteboard.  
Provide an accurate clock with large face visible to older adults.  
Consider using tools such as an “All About Me” board or poster/card that shows what makes the older adults calm and | Tips  
- Ensure that water and other patient-preferred, noncaffeinated fluids are available at the bedside and accessible to the older adult.  
- The focus here is on oral hydration so that the patient is not on an IV that may interfere with Mobility.  
- Establish a delirium prevention and management protocol that includes oral hydration.  
- Replace pitchers with straw water bottles for easier use by older adults. |

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Tips  
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Make sure day and date are updated on the whiteboard.  
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Consider using tools such as an “All About Me” board or poster/card that shows what makes the older adults calm and

Tips  
- For older adults with dementia, consider gentle re-orientation or use of orienting cues; avoid repeated testing of orientation if the older adult appears confused or frustrated.  
- Conduct orientation during every nursing shift as appropriate.
- Establish a delirium prevention and management protocol that includes orientation as appropriate.
- Identify person-centered environmental and personal approaches to orienting the older adult.
## Act on: Incorporate the 4Ms into the Plan of Care

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<td>Ensure older adults have their personal adaptive equipment**</td>
<td>happy, who is important to them, names of pets, etc. Make current or recent newspapers and periodicals available in patient rooms. Invite family or other caregivers to bring familiar and orienting items from home (e.g., family pictures).</td>
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<td>Prevent sleep interruptions; use nonpharmacological interventions to support sleep**</td>
<td>Incorporate routine intake and documentation of the older adults’ personal adaptive equipment. At the start of each shift, check for sensory aides and offer to clean them. If needed, offer a listening device or hearing amplifier from the unit.</td>
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<td>Avoid overnight vital checks and blood draws unless absolutely necessary. Create and use sleep kits(^{22,23}) that include items such as a small CD player, CD with relaxing music, lotion for a backrub or hand massage, noncaffeinated tea, lavender, sleep hygiene educational cards (e.g., discouraging caffeine after 11:00 AM or promoting physical activity). These can be placed in a</td>
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<td>Personal adaptive equipment includes glasses, hearing aids, dentures, and walkers. Establish a delirium prevention and management protocol that includes personal adaptive equipment. Note use of personal adaptive equipment on the whiteboard. Confirm need for personal adaptive equipment with family or other caregivers.</td>
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**Act on: Incorporate the 4Ms into the Plan of Care**

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| Ensure early, frequent, and safe mobility**26,27,28 | box on the unit to use in patient rooms as needed.                              | • Your institution should have a delirium prevention and management protocol that includes nonpharmacological sleep support.  
• Make a sleep kit available for order in the EHR.  
• Engage family or other caregivers to support sleep with methods that are familiar to the older adult. |
|                                                   | Ambulate at least three times a day or as directed by the clinical team.        | Tips                                                                                                                                                                   |
|                                                   | Set, monitor, and meet a daily mobility goal with each older adult.             | • Assess and manage impairments that reduce mobility; for example:  
  o Manage pain  
  o Assess impairments in strength, balance, or gait  
  o Remove catheters, IV lines, telemetry, and other tethering devices as soon as possible  
  o Avoid restraints  
  o Avoid sedatives and drugs that immobilize the older adult |
|                                                   | Get patients out of bed or have them leave the room for meals, therapy or other activities. | • Refer to physical therapy; have physical therapy interventions to help with balance, gait, strength, gait training, or an exercise program if needed.  
• Establish a delirium prevention and management protocol that includes mobility. The same interventions that prevent delirium also support safe mobility, further reinforcing the interconnectedness of the 4Ms.  
• Remember: All behavior has meaning. If older adults seem restless, they may need to move.  
• Engage the older adult and family or other caregivers directly with daily mobility goals (unless contraindicated, which is rare). Link mobility goals to What Matters and the desired outcome of the hospitalization: e.g., “You said you wanted to be strong enough to get to your class reunion next weekend, and walking farther each day will help you get there.”  
• Offer exercises that can be done in bed for patients who are unable to get out of bed (e.g., put appropriate exercises on a placemat that remains in the room). |

**These activities are also key to preventing and managing delirium**29 and fall
### Assess: Know about the 4Ms for Each Older Adult in Your Care

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<td><strong>Ask the older adult What Matters</strong></td>
<td>If you do not have existing questions to start this conversation, try the following, and adapt as needed.</td>
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<td><strong>“What is the one thing about your health or health care you most want to focus on related to_____ (fill in health problem OR the health care task) so that you can do_____ (fill in desired activity) more often or more easily?”</strong></td>
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<td>• This action focuses clinical encounters, decision making, and care planning on What Matters to older adults.</td>
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<td><strong>For older adults with advanced or serious illness, consider:</strong></td>
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<td>• Consider segmenting your population by healthy older adults, those with chronic conditions, those with serious illness, and individuals at the end of life. How you ask What Matters of each segment may differ.</td>
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<td><strong>“What are your most important goals if your health situation worsens?”</strong></td>
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<td>o Knowing What Matters Matters has two purposes. One is getting to know the person, which helps provide better care. Questions such as, <strong>“What is a good day for you?”</strong>, <strong>“Who is important to you?”</strong>, <strong>“What brings you joy?”</strong>, <strong>“What makes life worth living?”</strong> The second purpose is to align care with What Matters. The desired outcomes and fears, concerns, and questions are useful to know in the hospital setting.</td>
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*For older adults with advanced or serious illness, consider:*

| **“What are your most important goals if your health situation worsens?”** | | **Tips** |
| | | • Responsibility for asking What Matters can rest with any member of the care team; however, one person needs to be identified as responsible to ensure it is reliably done. |
| | | • Ask older adults if it is OK to include family or other caregivers in the discussion about What Matters; however, it is most important to learn What Matters to the older adult. |
| | | • Ask people with dementia What Matters. |
| | | • Integrate asking What Matters into Welcome to Medicare and the Medicare Annual Wellness Visit. |
| | | • You may include “Getting to know you” What Matters questions in pre-visit paperwork and verify the answers during the visit. However, identifying older adults’ health outcome goals and care preferences requires guidance to ensure that the goals and preferences are specific, reliable, and actionable enough to inform decision making and care. For older adults who are comfortable with technology or have family who can help, Myhealthpriorities.org provides a self-directed guide to identifying goals and care preferences. The resulting template can be brought to clinical encounters. |
| | | • Consider what variations might be required in how What Matters is approached based on race, ethnicity, and language. |
| | | • Leverage What Matters conversations to hear the voices and wishes of traditionally marginalized older adults. |
### Assess: Know about the 4Ms for Each Older Adult in Your Care

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<thead>
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<th>Getting Started</th>
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</tr>
</thead>
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<td></td>
<td></td>
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- "What Matters" to Older Adults?: A Toolkit for Health Systems to Design Better Care with Older Adults
- The Conversation Project and "Conversation Ready"
- Patient Priorities Care
- Serious Illness Conversation Guide
- Stanford Letter Project
- End-of-Life Care Conversations: Medicare Reimbursement FAQs
### Assess: Know about the 4Ms for Each Older Adult in Your Care

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| **Document What Matters**                 | Documentation can be on paper or in the electronic health record (EHR), where it is accessible to the whole care team across settings.\(^3^4\) | Tips  
• Identify where health and health care goals and priorities can be captured in your EHR and available across care teams and settings.  
• Consider documentation of What Matters to the older adult on paper that they can bring to appointments and other sites of care.  
• Invite older adults to enter What Matters to them on your patient portal.  

**Additional Resources**  
• Age-Friendly Health Systems: Guide to Electronic Health Record Requirements for Adoption of the 4Ms (Cerner Examples)  
• Age-Friendly Health Systems: Guide to Electronic Health Record Requirements for Adoption of the 4Ms (Epic Examples)  

| **Review for high-risk and potentially inappropriate medication use** | Specifically, look for:  
• Benzodiazepines  
• Opioids  
• Highly anticholinergic medications (e.g., diphenhydramine)  
• All prescription and over-the-counter sedatives and sleep medications  
• Muscle relaxants  
• Tricyclic and other antidepressants  
• Antipsychotics\(^3^5,3^6,3^7\)  
• Mood stabilizers | Tips  
• Consider this review a medication risk assessment and be sure to include over-the-counter medications at least annually in this assessment.  
• Engage the older adult and family member or other caregiver in providing all medications (including over-the-counter medicines) for review.  
• Medicare beneficiaries may be eligible for an annual comprehensive medication review.  
• Medication reconciliation, part of the Medicare Annual Wellness Visit, may be an important step in identifying high-risk medications.  
• Target medications that:  
  o Are without indication  
  o Have not had the intended response  
  o Are no longer needed  
  o Duplicate effects – benefit and harm  
  o Are not being taken and adherence is not critical |
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| Screen for dementia / cognitive impairment | If you do not have an existing tool, try using the [Mini-Cog®](#)\(^{38}\). If screen is positive, consider using an assessment tool such as [MoCA](#) or [SLUMS](#) for a more detailed assessment and staging, or refer to primary care physician or specialist for further assessment. For older adults with an established diagnosis of dementia, consider using a staging tool such as the [Global Deterioration Scale](#), [FAST](#), or [MoCA](#) for annual or episodic visits. | Additional Resources  
- American Geriatrics Society 2019 Updated [AGS Beers Criteria®](#) for Potentially Inappropriate Medication Use in Older Adults  
- [AGS 2019 Beers Criteria® Pocketcard](#)  
- STOPP (Screening Tool of Older Persons’ Prescriptions) and [START](#) (Screening Tool to Alert to Right Treatment)  
- [Reducing Inappropriate Medication Use by Implementing Deprescribing Guidelines](#)  
- [Medicare Interactive: Annual Wellness Visit](#)  
- [CDC Medication Personal Action Plan](#)  
- [CDC Personal Medicines List](#)  
- [Medication Management Instrument for Deficiences in the Elderly (MedMaIDE)](#)  
Tips  
- Normalize cognitive screening for patients. For example, say “I’m going to assess your cognitive health like we check your blood pressure, or your heart and lungs.”  
- Emphasize an older adult’s strengths when screening and document it so that all providers have a baseline cognitive screen.  
- If they have a sudden change in cognition, consider and rule out delirium.  
- Screening for cognitive impairment is part of Welcome to Medicare and the Medicare Annual Wellness Visit.  
Resources  
- [Saint Louis University Mental Status (SLUMS) Exam](#)  
- [Montreal Cognitive Assessment (MoCA)](#)  
- [Global Deterioration Scale](#)  
- [Functional Assessment Staging Tool (FAST)](#) |
| Screen for depression | If you do not have an existing tool, try using the [Patient Health Questionnaire – 2 (PHQ-2)](#). | Tips  
- Screen if there is concern about depression.  
- Screening for depression is part of Welcome to Medicare and the Medicare Annual Wellness Visit. |

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38. Mini-Cog®
39. Patient Health Questionnaire – 2 (PHQ-2)
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| Screen and assess for mobility limitations | If you do not have an existing tool, try using [Timed Up & Go (TUG)](https://www.ncbi.nlm.nih.gov/pubmed/18308574). If you do not have an existing tool, try using Timed Up & Go (TUG).40,41 | Resources  
- Patient Health Questionnaire – 9 (PHQ-9)  
- Geriatric Depression Scale (GDS) and GDS: Short Form  
Tips  
- Recognize that older adults may be worried about having their mobility screened.  
- Underscore that a mobility screen allows the care team to know the strengths of the older adult and is key to functioning and doing What Matters.  
- Screening for mobility is part of Welcome to Medicare and the Medicare Annual Wellness Visit.  
- Consider engaging the full care team in assessing mobility. Does the person walk into the waiting room? Are they able to stand up from the waiting room chair when called? Can they walk to the exam room?  
- While asking about falls is important, it is not sufficient. The focus is ensuring safe mobility, not only preventing falls.  
- Consider also conducting a functional assessment. Common tools include:  
  - Barthel Index of ADLs (in EPIC)  
  - The Lawton Instrumental Activities of Daily Living (IADL) Scale  
  - Katz Index of Independence in Activities of Daily Living (ADL)  
Resources  
- Johns Hopkins – Highest Level of Mobility (JH-HLM) Scale  
- Performance-Oriented Mobility Assessment (POMA)42 |
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<td>• These medications, individually and in combination, may interfere with What Matters, Mentation, and safe Mobility of older adults because they increase the risk of confusion, delirium, unsteadiness, and falls.(^{51})</td>
</tr>
</tbody>
</table>
### Act on: Incorporate the 4Ms into the Plan of Care

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
</table>
| • Highly anticholinergic medications (e.g., diphenhydramine)  
• All prescription and over-the-counter sedatives and sleep medications  
• Muscle relaxants  
• Tricyclic or other antidepressants  
• Antipsychotics⁴⁶,⁴⁷,⁴⁸,⁴⁹ | If the older adult takes one or more of these medications, discuss any concerns the patient may have, assess for adverse effects, and discuss deprescribing with the older adult.⁵⁰                                                                 | • Deprescribing includes both dose reduction and medication discontinuation. Many drugs will need to be tapered off and should not be stopped abruptly.                           |
|                                                     |                                                                                                                                                                                                                | • Deprescribing is a positive, person-centered approach, requiring informed patient consent, shared decision making, close monitoring, and compassionate support.                                |
|                                                     |                                                                                                                                                                                                                | • When possible, avoid prescribing these high-risk medications (prevention). Consider changing order sets in the EHR to change prescribing patterns (e.g., adjust/reduce doses or change medications available). |
|                                                     |                                                                                                                                                                                                                | • Provide ongoing patient/caregiver education about potentially high-risk medications through all care settings (e.g., outpatient pharmacy) to help improve safe medication use and informed decision making. |
|                                                     |                                                                                                                                                                                                                | • Consider community resources to support pain management with nonpharmacological interventions, including referral to community-based resources. |
|                                                     |                                                                                                                                                                                                                | • Communicate changes in medications across clinicians and settings of care, and with the primary pharmacy working with the older adult.                                                                                       |
|                                                     |                                                                                                                                                                                                                | • When instituting an age-friendly approach to medications:                                                                                                                                                                         |
|                                                     |                                                                                                                                                                                                                | o Identify who on your team is going to be the champion of this "M." The champion may not be a pharmacist, but it is vital to have a pharmacist or physician, as well as a patient, work on the plan. |
|                                                     |                                                                                                                                                                                                                | o Review your setting or system’s data, if possible, to identify medications that may be high-risk (e.g., anticoagulants, insulin, opioids) or potentially inappropriate (e.g., anticholinergics) |
|                                                     |                                                                                                                                                                                                                | o Determine your goal(s) with respect to your medication(s) identified in the previous step.                                                                                                                                              |
|                                                     |                                                                                                                                                                                                                | o Conduct a series of PDSA cycles to achieve your goal(s).                                                                                                                                                                              |
|                                                     |                                                                                                                                                                                                                | Resources                                                                                                                                                                                                                              |
|                                                     |                                                                                                                                                                                                                | • deprescribing.org                                                                                                                                                                                                                   |
|                                                     |                                                                                                                                                                                                                | • Reducing Inappropriate Medication Use by Implementing Deprescribing Guidelines                                                                                                                                                        |
|                                                     |                                                                                                                                                                                                                | • Alternative Medications for Medications Included in the Use of High-Risk Medications in the Elderly and Potentially Harmful Drug–Disease Interactions in the Elderly Quality Measures |
|                                                     |                                                                                                                                                                                                                | • Crosswalk: Evidence-Based Leadership Council Programs and the 4Ms                                                                                                                                                                     |
|                                                     |                                                                                                                                                                                                                | • Handouts for older adults and family caregivers:                                                                                                                                                                                      |
|                                                     |                                                                                                                                                                                                                | o American Geriatrics Society Health in Aging: Care for Medications                                                                                                                                                                    |
|                                                     |                                                                                                                                                                                                                | o American Society of Consultant Pharmacists: Printable Fact Sheets                                                                                                                                                                    |
|                                                     |                                                                                                                                                                                                                | o NeedyMeds BeMedWise: Free Printable Resources                                                                                                                                                                                        |
|                                                     |                                                                                                                                                                                                                | o Safe Medicine Use: A Guide for Older Adults and Caregivers; Free Printable Resource                                                                                                                                                    |
### Act on: Incorporate the 4Ms into the Plan of Care

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
</table>
| **Consider further evaluation and manage manifestations of dementia, or refer to geriatrics, psychiatry, or neurology as needed** | Share the results with the older adult and caregiver. Assess for modifiable contributors to cognitive impairment. Consider further diagnostic evaluation if appropriate. Follow current guidelines for treatment of dementia and resulting behavioral manifestations OR refer to geriatrics, psychiatry, or neurology for management of dementia-related issues. Provide educational materials to the older adult and family member or other caregiver. Refer the older adult, family, and other caregivers to supportive resources, such as the Alzheimer’s Association. | **Tips**
- Know about and refer older adults and their caregivers to local community-based organizations and resources to support them with education and/or support.
- Include family caregivers. They provide a source of information and support. To identify these individuals, ask the older adult, “Who would you go to for help?” and recommend that they bring that person to the next visit.
- Consider assessing and managing caregiver burden.
- Ensure follow-through on any referrals.
- If a memory disturbance is found, avoid medications that will make cognitive health worse.
- Do not prescribe medications that can exacerbate cognitive impairment, such as benzodiazepines and anticholinergics.
- If there is a diagnosis of dementia, include it on the problem list.
- Older adults with dementia will be at high risk of delirium, especially if hospitalized, so educate family or other caregivers and providers on delirium prevention.
- Understand how screening for mentation might be viewed in different cultures and ensure culturally appropriate support for older adults and their caregivers. |
| **Identify and manage factors contributing to depression** | Identify and manage factors that contribute to depressive symptoms, including sensory limitations (vision, hearing), social isolation, losses associated with aging (job, income, societal roles), bereavement, and medications. Consider the need for counseling and/or pharmacological treatment of | **Resources**
- Alzheimer’s Association
- Local Area Agency on Aging
- Community Resource Finder
- Center to Advance Palliative Care (CAPC): Implementing Best Practices in Dementia Care
- Zarit Burden Interview (for caregivers)
- Dementia Friendly America |

**Tips**
- Educate the patient and caregiver about depression in older adults.
- Recognize social isolation as a risk factor for depression and identify community-based resources that support social connections.
- Understand how screening for mentation might be viewed in different cultures and ensure culturally appropriate support for older adults and their caregivers.
### Act on: Incorporate the 4Ms into the Plan of Care

<table>
<thead>
<tr>
<th>Key Actions</th>
<th>Getting Started</th>
<th>Tips and Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure safe mobility&lt;sup&gt;53,54,55&lt;/sup&gt;</td>
<td>depression, or refer to a mental health provider if appropriate.</td>
<td>Resources&lt;br&gt;&lt;ul&gt;&lt;li&gt;&lt;a&gt;Local Area Agency on Aging&lt;/a&gt;&lt;/li&gt;&lt;li&gt;&lt;a&gt;Crosswalk: Evidence-Based Leadership Council Programs and the 4Ms&lt;/a&gt;&lt;/li&gt;&lt;/ul&gt;</td>
</tr>
</tbody>
</table>
| | Assess and manage impairments that reduce mobility; such as:<ul><li>Pain</li><li>Impairments in strength, balance, or gait</li><li>Hazards in home (e.g., stairs, loose carpet or rugs, loose or broken handrails)</li><li>High-risk medications</li></ul><br>Refer to physical therapy if appropriate.<br><br>Support older adults, families, and other caregivers to create a home environment that is safe for mobility.<sup>56</sup><br><br>Support older adults to identify and set a daily mobility goal that supports What Matters.<br><br>Review and support progress toward the mobility goal in subsequent interactions. | Tips<br><ul><li>Have a multifactorial safe mobility protocol (e.g., STEADI) that includes:<ul><li>Educating the patient/family/other caregivers</li><li>Managing impairments that reduce mobility (e.g., pain, balance, gait, strength)</li><li>Ensuring a safe home environment for mobility</li><li>Identifying and setting a daily mobility goal with the patient that supports What Matters, and then reviewing and supporting progress toward the mobility goal</li><li>Avoiding high-risk medications</li><li>Referring to physical therapy</li></ul></li><li>Tie mobility to desired activities</li><li>Consider driving and other transportation in addressing Mobility so that older adults can do What Matters</li></ul>Resources<br><ul><li><a>Stopping Elderly Accidents, Deaths & Injuries (STEADI)</a></li><li><a>CDC My Mobility Plan</a></li><li><a>CAPABLE: Aging in Place</a></li></ul>
Appendix D: Becoming Recognized as Age-Friendly Health Systems — Participant and Committed to Care Excellence

IHI recognizes clinical care settings that are working toward reliable practice of four evidence-based interventions — known as the 4Ms (4Ms: What Matters, Medications, Mentation, Mobility) — for all older adults in their care. As of April 2022, more than 2,700 health care organizations have earned level 1 recognition (Participant) and more than 700 have achieved level 2 recognition (Committed to Care Excellence) in the Age-Friendly Health Systems movement.

- Level 1 (Participant) teams have successfully developed plans to implement the 4Ms.
- Level 2 (Committed to Care Excellence) teams have three months of self-reported data to demonstrate the count of older adults reached with 4Ms care.

To submit your recognition request, choose the appropriate form linked below and send your completed care description to AFHS@ihi.org. You should receive an email with information about your recognition status within three weeks.

- Hospital
- Ambulatory Care

If your health care system has multiple sites of care, please use the Committed to Care Excellence Counts (multiple sites) spreadsheet to submit data for each setting. If not, please look at the last page of your Care Description PDF form for how to submit data.

For more information on who is eligible for recognition, timelines from submission to notification, and more, visit www.IHI.org/Age-Friendly Health Systems/Recognition. Or email AFHS@ihi.org for additional information on becoming recognized as an Age-Friendly Health System.
Appendix E: Age-Friendly Care Workflow Examples

Hospital-Based Care Workflows: Core Functions

1. Intake into care setting
2. Check history for baseline on 4Ms
3. Conduct 4Ms screening
4. Delirium? (Yes/No)
   - Yes: Document delirium
   - No: Ask What Matters

   - What matters documented? (Yes/No)
     - Yes: Confirm What Matters
     - No: Ask What Matters

5. Conduct daily prevention/maintenance management
6. Change in condition? (Worse/Same or Better)
   - Worse: Transition to next care setting
   - Same or Better: Ready to transition? (Yes/No)

   - Yes: Transition to next care setting
   - No: Conduct daily prevention/maintenance management

7. Every 12 hours at shift change?
   - Screen for delirium
   - Orient to time, place, situation
   - Hydrate (orally)
   - Avoid high-risk medications
   - Document results
   - At least daily:
     - Mobilize

8. Transition to next care setting

9. TUG positive? (Yes/No)
   - Yes: Document results
   - No: High-risk medications present? (Yes/No)
     - Yes: Document high-risk medications
     - No: High-risk medications present? (Yes/No)

10. Create 4Ms transition summary
    - Care plan executed, transition
Ambulatory/Primary Care Workflows:
Core Functions for New Patient, Annual Visit, or Change in Health Status
Appendix F: Examples of PDSA Cycles for Age-Friendly Care

Example: Testing What Matters Engagement with Hospitalized Older Adult Patients

---

**Plan-Do-Study-Act Record**

| NAME OF HEALTH SYSTEM: Camden University Medical Center |
| NAME OF PERSON COMPLETING FORM: Erin Rush, RN |
| DATE: March 29, 2019 |

Change Idea to ___ develop or _X_ test or ___ implement

Description:
Cycle 1: Test a What Matters engagement with a hospitalized patient.

**Essential Ingredients**

- **Ask What Matters**
  - Who?
  - What?
  - Using what question(s)?

- **Document What Matters**
  - Who?
  - What?
  - Where?

- **Align the Care Plan with What Matters**
  - Who?
  - How do we know if that has happened?

---

**PLAN:**

Questions: What do we want to know?

- Can physicians incorporate What Matters engagements into rounds with older adult patients?
- Will physicians learn something useful from this What Matters engagement relevant to care planning?

Predictions: What do we think will happen?

- Physicians can incorporate What Matters engagements into rounds with older adult patients.
- Physicians can learn something useful from What Matters engagements relevant to care planning.

Plan for the change or test: Who, What, When, Where. What are we going to do to make our test happen?

<table>
<thead>
<tr>
<th>List the tasks necessary to complete this test (What)</th>
<th>Person responsible</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orient Dr. M (hospitalist) to this test</td>
<td>Erin</td>
<td>Monday morning</td>
<td>4 South</td>
</tr>
<tr>
<td>Select older adult patient for test</td>
<td>Erin and Dr. M</td>
<td>Monday morning</td>
<td>4 South</td>
</tr>
<tr>
<td>Ask older adult patient, &quot;What's important to you in the next few days as you recover from your illness?&quot;</td>
<td>Dr. M</td>
<td>Monday</td>
<td>TBD</td>
</tr>
<tr>
<td>Debrief test and complete PDSA cycle</td>
<td>Erin and Dr. M</td>
<td>Tuesday morning</td>
<td>4 South</td>
</tr>
</tbody>
</table>

Plan for data collection: Who, What, When, Where. How will we compare predictions to actual?
Erin and Dr. M to meet the next day to debrief test, capture what happened, impressions, how that compared to predictions, next steps.

**DO: Carry out the change or test; collect data and begin analysis; describe the test/what happened.**

- Dr. M asked 1, and then 4 more, older patients — went beyond testing with just 1 patient!
- Some answers were very health/condition-related (e.g., a patient with shortness of breath/cough stated, “I just want my cough to be better and to be able to breathe.”).
- Other answers were more life-related, for example:
  - A patient being treated for stroke, who is a performance artist, shared a video of performance and indicated that What Matters is to be able to return to performing.
  - A patient with multiple falls wants to be able to stand to cook again.

**STUDY: Complete analysis of data; summarize what was learned; compare what happened to predictions above.**

- Asking a single question is not sufficient. Need the opportunity for follow-up questions and listening. For example: A patient with congestive heart failure and arthritis has an immediate goal to reduce swelling in her legs. Further probing revealed a desire to stay in her home and be able to cook to avoid delivered salty foods and to avoid rehospitalization. Possible solution: Prescription for homemaker assistance.
- Dr. M regularly engages patients with What Matters in an outpatient setting. New for inpatient rounds, but feasible to include.
- Worthwhile if there is time for follow-up (not just one question and one answer in 30 seconds).
- No patients responded with goals or needs that could not be addressed somehow in the care plan.
- Asking a What Matters question feels awkward. Need to build a relationship first before asking an “intimate” question. For example, asking on the second day of rounding feels better than asking on the first day.
- Asking a What Matters question helped Dr. M bond with the patients.
- There was a lack of clarity on what to do with the information learned from the What Matters engagement (e.g., how to document, how to share).
- Still have a concern about not knowing what to do if a patient expresses a need or goal beyond the specific health condition or issues that the physician (Dr. M) is trained to address.

**ACT: Are we ready to make a change? Plan for the next cycle.**

Test again. Questions to explore through more testing include:

- Is it better to ask the What Matters question at the beginning or end of the encounter?
- How can we get at What Matters for our patients with cognitive impairment?
- Where is the best place to document the information from the What Matters engagement?
  - White board: “Anyone” can use the white board. Can this be done effectively?
  - Epic documentation agreement (meetings underway with Epic team to discuss options).
- Are the daily multidisciplinary rounds/huddles the best place to discuss what’s learned from What Matters engagements?
  - Do we need to coordinate our engagement about What Matters? Nursing, care management, and physicians all could be asking variants of What Matters.
- Could the nurse or case manager have a What Matters conversation and document it so that it is available for physicians to reference in a consult visit or rounding?
### Example: Testing a 4Ms Screening for Older Adults in Primary Care

**Plan-Do-Study-Act Record**

<table>
<thead>
<tr>
<th>NAME OF HEALTH SYSTEM:</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME OF PERSON COMPLETING FORM:</td>
<td>Name</td>
</tr>
<tr>
<td>DATE:</td>
<td>Date</td>
</tr>
<tr>
<td>Change Idea to ____develop or <em>X</em> test or ____ implement</td>
<td></td>
</tr>
</tbody>
</table>

**Description:**

Cycle 1: Test a 4Ms “screening set” with one older adult patient in your care.

- **What Matters:**
  - Ask, “What makes life worth living?”; “What would make tomorrow a really great day for you?”; “What concerns you most when you think about your health and health care in the future?”
  - Confirm the presence of a health care proxy (proxy’s name, contact information)

- **Medication:**
  - Identify use of high-risk medications

- **Mentation:**
  - Administer the Mini-Cog
  - Administer the PHQ-2

- **Mobility:**
  - Conduct the TUG Test

**PLAN:**

**Questions: What do we want to know? [Add or edit questions below, as needed.]**

1. Can we practice all 4Ms items (above) on intake for one older adult patient?
2. How long does it take?
3. How does it feel for the staff conducting the assessment? (e.g., What went well? What could be improved?)
4. How does it feel for the patient/family receiving the assessment? (e.g., What went well? What could be improved?)
5. What are we learning from conducting this 4Ms screening set? Did we learn anything about this patient that will improve our care, service, and/or processes?

**Predictions: What do we think will happen? [Edit draft answers below, as needed.]**

1. Yes
2. 10 minutes
3. Staff will give at least two ideas/identify two issues with the 4Ms screening set.
4. Patient/family will give at least one idea/issue with the screening set use.
5. Staff will get at least one insight/“aha” regarding care for the patient from the screening set.

**Plan for the change or test: Who, What, When, Where. What are we going to do to make our test happen? [Edit the draft tasks below, as needed.]**

<table>
<thead>
<tr>
<th>List the tasks necessary to complete this test (What)</th>
<th>Person responsible</th>
<th>When</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Select an older adult patient with whom we are likely to be able to conduct this test in the next three days. Identify a</td>
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<td></td>
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</tbody>
</table>
patient who we might “easily” engage on all items of the 4Ms screening set.

2. Select a staff person who will conduct the test, and brief her/him.

3. Decide on what you will say to invite the patient/family to participate in testing the 4Ms screening set. For example, “We are testing ways to know our patients better to develop the right care plan. Would you be willing to test a set of questions today and give your opinion about this experience?”

Plan for data collection: Who, What, When, Where. How will we compare predictions to actual? [Adapt or edit the sample data collection form below, as needed.]

- Fill in data collection plan (Who, What, When, Where) [example below]:

<table>
<thead>
<tr>
<th>Date</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
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<td>Y</td>
<td>Y</td>
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<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
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</tr>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What Matters</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asked: What makes life worth living? (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Asked: What would make tomorrow a really great day for you? (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Asked: What concerns you most when you think about your health and health care in the future? (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Has health care agent? (yes/no/didn’t review)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medication</th>
<th>Patient 1</th>
<th>Patient 2</th>
<th>Patient 3</th>
<th>Patient 4</th>
<th>Patient 5</th>
<th>Patient 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identified use of high-risk medication (yes/no/didn’t review)</td>
<td>Y</td>
<td>N</td>
<td>DR</td>
<td>Y</td>
<td>N</td>
<td>DR</td>
</tr>
<tr>
<td>Administered the Mini-Cog (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Administered the PHQ-2 (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Conducted TUG Test (yes/no)</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of time to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff feedback</td>
</tr>
<tr>
<td>Patient/family feedback</td>
</tr>
<tr>
<td>Other notes and/or questions that came up from this test</td>
</tr>
</tbody>
</table>

DO: Carry out the change or test; collect data and begin analysis; describe the test/what happened.

- Fill in during or after conducting the test

STUDY: Complete analysis of data; summarize what was learned; compare what happened to predictions above.

- Fill in after conducting the test

ACT: Are we ready to make a change? Plan for the next cycle.

- Fill in after conducting the study. Will you adopt, adapt, abandon, or run the test again? For example, PDSA Cycle 2: Conduct test again with five patients making the following adjustments...
Example: Ambulatory/Primary Care Multiple PDSA Cycles

**4Ms Screening Set**

(Ask and document What Matters, review high-risk meds, mini-cog, PHQ2, TUG)

1. Test screening set with 1 patient
2. Complete PHQ-2 at check-in, test with 3 patients
3. Adapt What Matters question, test with 5 patients
4. Provide patient education, update EHR, test with 10 patients

**TUG**

1. Test TUG with 1 patient
2. Put line, stopwatch, worksheet in all rooms, test with 5 patients
3. Note exceptions to TUG in standard procedure, test with all Dr. Smith’s patients
4. Update EHR
Example: Hospital-Based Care Multiple PDSA Cycles

### 4Ms Screening Set

(Ask and document What Matters, review high-risk meds; UB-CAM every 12 hours; TUG)

1. Test set with 1 patient (all screenings done?)

2. Test set with 1 RN's patients for 1 day (all screenings done?)

3. Test set with all RNs on unit for 1 patient for 1 day (all screenings done?)

4. Test set with all RNs on unit for all patients for 1 day (all screenings done)?

5. Update EHR

---

### UB-CAM

1. Train 1 tech on UB-CAM, test with 1 Patient

2. Include UB-CAM with vital signs, test with 5 patients

3. Create triggers to admin 3D-CAM within 2 hours of positive screen

4. Train additional staff, test with all patients for 1 week

5. Update EHR
Appendix G: Implementing Reliable 4Ms Age-Friendly Care

The goal is to reliably integrate the 4Ms into the way you provide care for every older adult, in every setting, every time. How will you know that 4Ms care, as described by your site, is reliably in place?

The best way is to observe the work directly, using your 4Ms Age-Friendly Care Description Worksheet as an observation guide. Another way is to review patient records to confirm completeness of 4Ms documentation and alignment of care team actions with information obtained in assessment. Note that you only need a handful of patient records to tell you that your 4Ms performance is not at a high level (say, 95 percent or higher). For example, if you see three instances of incomplete 4Ms care in a random sample of 10 records, you have strong evidence that your system is not performing in a way that 95 percent or more of your patients are experiencing 4Ms care.

If an outside reviewer visited your care setting, they would look for evidence that your site has the foundation for reliable 4Ms care, including the following:

- If the reviewer asks five staff members, the staff will use the same explanation for WHY your site does the 4Ms work.
- If the reviewer asks five staff members, the staff will use the same explanation for HOW your site does the 4Ms work.
- Staff at your site will have documentation for the 4Ms work; they can access your 4Ms Care Description and additional standard supporting operating procedures, flowcharts, and/or checklists.
- Training/orientation introduces new staff to the 4Ms work.
- Job descriptions outline elements of the 4Ms work as appropriate to the role.
- Performance evaluation refers to the 4Ms work.

Reviewers would also expect to learn about regular observation of 4Ms work by site supervisors and leaders who seek to understand and work with staff to remove barriers to reliable 4Ms care.
Appendix H: Measuring the Impact of 4Ms Age-Friendly Care

We highly recommend that you create and monitor an age-friendly measurement dashboard to understand the impact of your efforts. This can be accomplished in two ways:

1. Segment an existing dashboard by age and monitor performance for older adults (ages 65 years and older); or
2. Focus on a small set of basic outcome measures for older adults.

The tables below list outcome measures that IHI identified to help health systems understand the impact of 4Ms age-friendly care. These measures are not designed to compare or rank health systems in “age-friendliness.” We seek to outline measures that are “good enough” to establish baseline performance and are sensitive to improvements, while paying attention to the feasibility of collecting, analyzing, and acting on the results of these data for health systems with a range of skills and capacity in measurement. See the Age-Friendly Health Systems: Measures Guide for additional details on these measures, as well as suggested process and balancing measures.

<table>
<thead>
<tr>
<th>Basic Outcome Measures</th>
<th>Hospital Site of Care</th>
<th>Ambulatory/Primary Care Site of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>30-day all-cause readmission rate</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Rate of emergency department (ED) visits</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Consumer Assessment of Healthcare Providers and Systems (CAHPS) — Select survey questions</td>
<td>HCAHPS</td>
<td>CG-CAHPS</td>
</tr>
<tr>
<td>Average length of stay</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advanced Outcome Measures</th>
<th>Hospital Site of Care</th>
<th>Ambulatory/Primary Care Site of Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older adults with diagnosis of delirium</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Survey of care concordance with What Matters collaboRATE (or similar tool adopted by your site to measure goal-concordant care)</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Additional Stratification: 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 Age-Friendly Health Systems, we encourage stratifying 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. We also encourage participation in the Human Rights Campaign Healthcare Equality Index, which promotes LGBTQ patient-centered care.
Appendix I: Definitions for Screening, Assessing, and Staging in Age-Friendly Health Systems

In this guide, we use terms such as "screening," "assessment," and "staging" to describe the purpose of a particular tool or process. Included below are definitions of these terms as they relate to Age-Friendly Health Systems.

Screening tools and processes. A screening tool is a brief measure designed to identify individuals who may have signs or symptoms of a particular condition (such as dementia) or may be at greater risk of developing certain conditions. A positive result on a screening tool indicates that the person requires a more detailed evaluation by a trained clinician using an evidence-based or evidence-informed tool or set of assessment protocols. Screening tools may identify older adults early enough to provide treatment and avoid or reduce symptoms and other consequences.

Assessment tools and processes. For older adults who have a positive screen, or those at higher risk for a particular condition, a set of assessments and actions provides additional information about the person’s condition that can further focus the care plan process and interventions. Assessment tools may include more detailed surveys, laboratory tests, radiology or imaging studies, quantitative and/or qualitative assessments by a skilled, trained clinician or team of clinicians. For example, a clinician’s review of a Timed Up and Go may reveal issues with an older adult’s gait and balance (e.g., weakness, unsteadiness while turning). Based on that initial screen, a more in-depth assessment by a physical therapist determines specific aspects of the older person’s walking, turning, balance, strength, sensation, and cognition that will inform the design and implementation of the best care plan for that individual. Assessments may also be used to track changes in an older person’s status over time.

Staging tools and processes. Some (not all) conditions may have standardized staging criteria applied to individual cases to indicate which stage of an illness or condition they are in, and to track changes (improvement, decline) over time. Certain conditions (such as dementia) may have more than one staging method; therefore, it is important to know which methods are evidence-based and clinically appropriate. IHI does not require organizations to have specific staging tools or processes in order to be recognized as an Age-Friendly Health System. However, if staging is part of clinical care and care planning, we recommend that it be conducted by trained clinicians and documented in a place where all relevant team members may access the information.

References


13. Tinetti M. Strategies for aligning decision-making with the health priorities of older adults with multiple chronic conditions. (Under review)


17 Mattison ML, Afonso KA, Ngo LH, Mukamal KJ. Preventing potentially inappropriate medication use in hospitalized older patients with a computerized provider order entry warning system. *Archives of Internal Medicine*. 2010;170(15):1331-1336.


24 McDowell JA, Mion LC, Lydon T, Inouye SK. A nonpharmacologic sleep protocol for hospitalized older patients. *Journal of the American Geriatrics Soc*. 1998;46:700-705. [This is the same as 22.]


29 Hospital Elder Life Program (HELP) for Prevention of Delirium. https://www.hospitalelderlifeprogram.org/ [This link was broken. Replace it with this? https://www.commonwealthfund.org/publications/other-publication/2005/nov/preventing-delirium-older-adults-hospital-elder-life?]


32 Condensed Conversation Guide for Identifying Patient Priorities (Specific Ask). Patient Priorities Care. https://patientprioritiescare.org/resources/clinicians-and-health-systems/ [This link doesn't seem to go to this guide specifically. Also, this appears above.]


44 Tinetti M. Strategies for aligning decision-making with the health priorities of older adults with multiple chronic conditions. (Under review) [cited above]


48 Mattison ML, Afonso KA, Ngo LH, Mukamal KJ. Preventing potentially inappropriate medication use in hospitalized older patients with a computerized provider order entry warning system. *Arch Intern Med.* 2010;170(15):1331-1336. [cited above]


52 Alzheimer’s Association. https://alz.org/


