

Age-Friendly Health Systems: Guide to Electronic Health Record Requirements for Adoption of the 4Ms

An Implementation Guide for Health Systems
with Epic Examples

July 2019

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Age-Friendly 
Health Systems

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Introduction

Age-Friendly Health Systems Overview

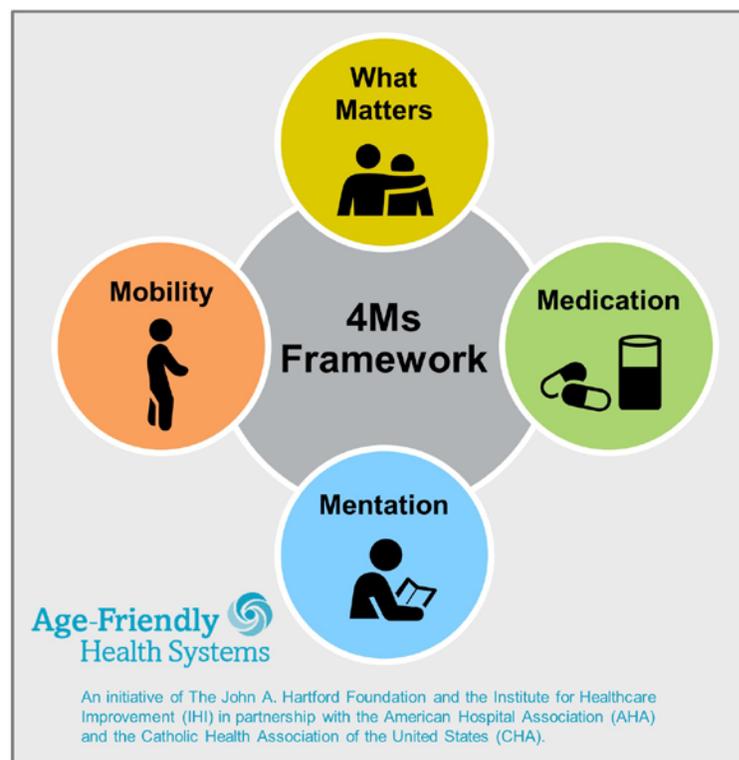
The United States is aging. The number of older adults, individuals ages 65 years and older, is growing rapidly. As we age, care often becomes more complex. Health systems frequently are not prepared for this complexity, and older adults suffer a disproportionate amount of harm while in the care of the health system.

To address these challenges, in 2017, The John A. Hartford Foundation 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, which:

- Follows an essential set of evidence-based practices (4Ms);
- Causes no harm; and
- Aligns with What Matters to the older adult and their family caregivers.

Becoming an Age-Friendly Health System entails reliably providing a set of 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 shift by health systems to focus on the needs of older adults (see Figure 1).

Figure 1. 4Ms Framework of an Age-Friendly Health System



For related work, this graphic may be used in its entirety without requesting permission. Graphic files and guidance at ihi.org/AgeFriendly

The 4Ms – What Matters, Medication, Mentation, and Mobility – make care of older adults that can be complex, more manageable. The 4Ms identify the core issues that should drive all care and decision making with 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 condition(s). They apply regardless of the number of functional problems an older adult may have, or that person’s cultural, ethnic, or religious background.¹

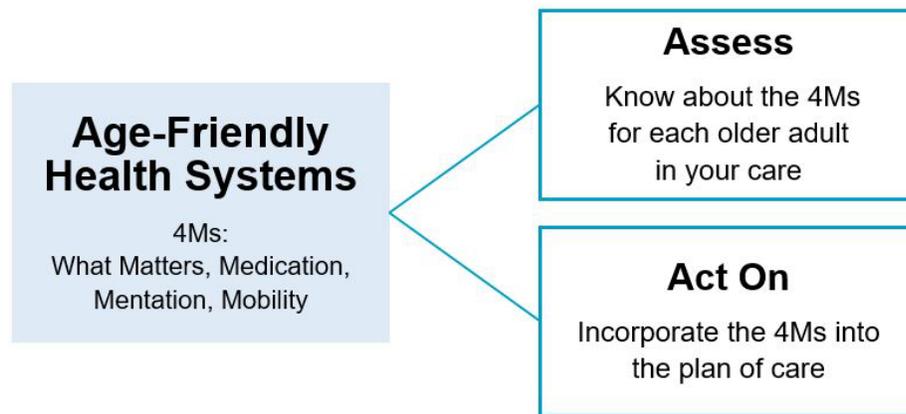
The 4Ms are a framework, not a program, to guide all care of older adults wherever and whenever they touch health system’s services. There are two key drivers of age-friendly care: knowing about the 4Ms for each older adult in care (“assess”) and incorporating the 4Ms into the plan of care accordingly (“act on”) (see Figure 2).

There are many ways to improve care for older adults; however, there is a finite set of key actions. The [Age-Friendly Health Systems: Guide to Using the 4Ms in the Care of Older Adults](#) summarizes the key actions that can dramatically improve care when implemented together (Guide to Using the 4Ms, pages 11-12) and offers a list of key actions, tips, and resources to get started with each element in your setting (Guide to Using the 4Ms, Appendix D). This list of actions is considered the gateway to your journey to becoming an Age-Friendly Health System.

Integrating the 4Ms into the electronic health record (EHR) is a mechanism to ensure reliable practice of these essential elements across care settings. This implementation guide was designed as a resource for health systems to build the 4Ms, and associated care practices, into the EHR. It addresses how to incorporate both the “assess” and “act on” drivers of the 4Ms into the EHR.

The guidance in this Guide is not specific to a particular EHR vendor; however, specific suggestions are provided for use with Epic.

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



¹ Adapted from Tinetti M. How focusing on What Matters simplifies complex care for older adults. Institute for Healthcare Improvement website. <http://www.ihl.org/communities/blogs/how-focusing-on-what-matters-simplifies-complex-care-for-older-adult>. Published January 23, 2019. Accessed March 7, 2019.

Inpatient Implementation

Utilizing your EHR to implement the 4Ms in the inpatient setting for care with older adults

When using these guidelines to implement the 4Ms in your EHR, validate both content and workflow inside your organization. Provide 4Ms documentation for all specialties across the continuum of care.

In Epic: Begin your build by creating a CER (rule) record. Choose a criterion of patient age, excluding patients under 65 years of age (e.g., “Patient Age is not less than 65 years”). This rule will be used as your filter where CER rules are accepted throughout your build. Skip this step if all components of the 4Ms will be used for all patients regardless of age. The same rule may be shared between inpatient and outpatient contexts.

Create a 4Ms report for use within the Patient Summary activity. Ensure all 4Ms documentation can be found for review by clinicians in the 4Ms report.

What Matters

What Matters means *knowing and aligning care with each older adult’s specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care*. The [“What Matters” to Older Adults? A Toolkit for Health Systems to Design Better Care With Older Adults](#) and www.ihf.org/AgeFriendly website has more detailed guidance about how to put What Matters into practice as part of the 4Ms.

Assess

First, in admission required documentation flowsheets, create a row titled “What Matters to the older adult/family caregiver” to capture What Matters. Next, provide prompts in row details (additional information) for clinicians to ask about What Matters to the older adult and their goals related to health and health care. If you do not have existing prompts, try the following and adapt as needed:

- For all older adults: “Older adult/family caregiver focus for stay.”
- For older adults with advanced or serious illness: “Most important goals if condition worsens.”

Document the older adult’s answer in the EHR or enable a space in your inpatient patient portal. A multi-response answer may be used to list the most common responses to What Matters. Examples of potential answer choices include: family connections, comfort, understanding care plans, clinical care needs, or other (with space for comments). Validate a comprehensive list of options across the continuum of care.

A flowsheet row may be used for a specific response of What Matters to older adults in their own words, such as attending an upcoming family event or rejoining a group or class each week.

Include the information documented here on the older adult's summary report in a conspicuous location. Ensure it appears to care team members across the continuum of care.

In Epic: Build two multi-select flowsheet rows as detailed above for general What Matters options and a third for details of the older adult's response of What Matters. Build a flowsheet group for your What Matters questions and embed the flowsheet rows. Include the group containing the flowsheet rows in the admission navigator and within the flowsheets activity. Build a print group (LPG) to display the older adult or family caregiver answers to clinicians.

A print group (LPG) should show these items at the top of a rounding report, Kardex/SBAR/Snapshot, or similar report in addition to the 4Ms report.

If using MyChart Bedside, create a questionnaire available to older adults and enable the older adult or family caregiver to answer. Responses should be enabled to file to the above flowsheets with clinician validation.

Act On

Use the information documented in the assessment to align the care plan with What Matters. The answers to the What Matters flowsheet will drive an alert or advisory which will, in turn, prompt clinicians to add care plans appropriate to the older adult's priorities. For example, if an older adult identifies managing pain as a priority, a pain management care plan should be suggested or automatically added based on the earlier flowsheet documentation.

An option for "other" should be available both for initial documentation of the older adult's information as well as within care plan documentation. Clinicians should individualize the care plan for each older adult, considering person's goals and preferences. Add appropriate patient education for enabling older adult's goals and preferences. Some content may be generated from flowsheet and/or care plan documentation via alerts, prompts, or behind-the-scenes rules.

In Epic: Create a Best Practice Advisory (BPA) to suggest care plans corresponding with the What Matters documentation. The BPA criteria should look to the FLO documentation (e.g., if fall risk is reported as What Matters to the older adult, fire a care plan relating to fall risk reduction). In the attached care plans, suggest corresponding patient education documentation via BPA as well. If validated in your organization, patient education may be auto-added from appropriate care plan documentation.

Consider incorporating What Matters to the older adult into the clinician admission note template along with space for actions taken. For organizations with existing templates or significant customization amongst clinicians, consider publishing a link that can pull in the older adult's answers from flowsheets.

In Epic: Create a SmartLink or SmartPhrase (for example .FLOW[FLO ID]) and incorporate it into standard clinician note templates, or train to the new SmartLink/SmartPhrase and assist clinicians in adding to their existing, personalized templates.

All care team members should be able to view What Matters within the older adult's chart. Incorporate this information into the 4Ms report mentioned at the beginning of this document. In addition to incorporating What Matters, consider including code status, advance directives, and Medical Orders for Life-Sustaining Treatment (MOLST)/Physician Orders for Life-Sustaining Treatment (POLST) documentation to encourage its use in clinical decision making. Alternatively, or additionally, create a navigator dedicated to 4Ms documentation and review. If a navigator is created, consider restricting to patients 65 and older.

In Epic: Add What Matters to the Advance Care Planning tool as a navigator section. This section should appear for all patients regardless of age or advance care planning status.

Medication

If medication is necessary, use age-friendly medication that does not interfere with What Matters to the older adult, Mentation, or Mobility across settings of care. [The Guide to Using the 4Ms in the Care of Older Adults](#), pages 31 and 34-35, provides information about Assessing and Acting On Medication in the context of being an Age-Friendly Health System in an inpatient setting.

Assess

Review for high-risk medication use. Potentially inappropriate medications for older adults include the following:

- Benzodiazepines
- Opioids
- Highly-anticholinergic medications (e.g., diphenhydramine)
- All prescription and over-the-counter sedatives and sleep medications
- Muscle relaxants
- Tricyclic antidepressants
- Antipsychotics

In Epic: Include medication reconciliation in the admission navigator and required admission documentation as validated by your organization. Ensure suggestions inside order sets reflect age-appropriate medication choices and doses. Reconciliation and new medication orders should fire alternative alerts to clinician and pharmacists.

From the Kardex/SBAR/Snapshot report, 4Ms report, and clinician review reports (such as a rounding report), an age-filtered print group should appear for medications presenting greater risk to patients 65 and older.

Analysts may use Age/Sex medication warnings if using Medi-Span or Multilex and use Geriatric medication warnings if using FDB. These can be built as Medication Rules (RXR) records by your medication warning builder and attached to the medication class as appropriate. Ensure your medication warning builder confirms the alerts are set appropriately so they are not filtered out. See the Alternative Alerts section of Galaxy for more information or discuss with your Willow IS or TS.

Act On

Avoid or deprescribe the high-risk medications listed above. If the older adult takes one or more of the medications listed, discuss any concerns the patient may have, assess for adverse effects, and discuss deprescribing with the older adult.

In Epic: Highlight high-risk medications. Consider adding a BPA to deprescribe either when any medications on the list are highlighted or when prescribing any medications on the list.

Mentation

Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care. [The Guide to Using the 4Ms in the Care of Older Adults](#), pages 32 and 35-36, provides information about Assessing and Acting On Mentation in the context of being an Age-Friendly Health System in an inpatient setting.

Assess

Screen for delirium at least every 12 hours. Incorporate your delirium screening tool into required admission and shift documentation. If you do not have an existing tool, try using the [Ultra-Brief 2-Item Screener \(UB-2\)](#).

In Epic: Build a delirium screen required documentation rule containing your delirium screening flowsheet rows or group. If you do not have a delirium screen tool currently in place, you may build the UB-2 and incorporate the associated rows into your required documentation rules. Add the delirium screen to Head to Toe/Adult PCS flowsheet template if not already present.

Examples of the UB-2 used at other organizations using Epic may be found on the Community Library.

Add your delirium screen required documentation rule to both the admission and shift tabs within required documentation, preferably at the system level. Filter out patients under 65.

Act On

Note that interventions below may support other goals within the 4Ms framework in addition to Mentation.

Ensure Sufficient Oral Hydration

Make fields available to clinicians for documentation when prompting or encouraging older adults to drink (in addition to fields for oral fluid intake) within the intake and output and daily cares flowsheet templates or another location specified by your organization. Ensure an option is available for documentation of fluid restriction and/or nothing by mouth (NPO) status.

Orient Older Adults to Time, Place, and Situation

Document orientation status in flowsheets. If the older adult is disoriented, provide a row or use the orientation row with additional options for staff to document use of gentle reorientation and/or orienting cues.

Ensure Older Adults Have Their Personal Adaptive Equipment

Include a flowsheet row titled “Adaptive equipment accessible” for registered nurses (RNs) or aides to document that the older adult’s items are within reach. As multi-select items, include glasses, hearing aids, dentures, walkers, and other. Consider other choices as defined by your organization. Make your documentation available from the Daily Cares flowsheet template.

Prevent Sleep Interruptions and Use Non-pharmacological Interventions to Support Sleep

Ensure that EHR documentation windows reflect policy and that clinicians can avoid sleep interruptions for older adults’ assessments by clustering care.

Offer a flowsheet row with non-pharmacological interventions as options in Bedtime Readiness: sleep aids (e.g., earplugs, sleep masks, muscle relaxation), lights dimmed, noise minimized, music,

sleep kit offered, and other for RN or aide documentation. This may be included in the Daily Cares flowsheet template or another place of your organization's choosing.

In Epic: Build flowsheet rows for mentation documentation as needed. Include these both in the most relevant flowsheet template for documentation as well as required shift documentation (with exception of bedtime readiness). Ensure all documentation flows to the patient summary reports defined (e.g., 4Ms, SnapShot, etc.) for clinician review.

Mobility

Ensure that older adults move safely every day to maintain function and do What Matters. [*The Guide to Using the 4Ms in the Care of Older Adults*](#), pages 32-33 and 37, provides information about Assessing and Acting On Mobility in the context of being an Age-Friendly Health System in an inpatient setting.

Assess

Screen for mobility limitations. Incorporate your mobility screening tool into required admission documentation. If you do not have an existing tool, try using the [Timed Up & Go \(TUG\) assessment](#).

Act On

Ensure early, frequent, and safe mobility. Manage impairments that reduce mobility. Include pain scores, catheters, IV lines, telemetry orders, or other tethers such as continuous pulse oximetry, electroencephalogram (EEG), or restraints on the patient overview, rounding, and nursing handoff reports along with mobility documentation.

Within the care plan, provide a place for the RN to document the older adult's daily mobility goal and the steps needed to achieve the day's goal.

Patient activity should be documented with activities of daily living.

In Epic: Use your mobility scoring/screening flowsheet documentation to fire a BPA to suggest care plan documentation. Consider adding patient education based on care planning as validated by your organization.

Examples of the Timed Up & Go assessment used at other organizations using Epic may be found in the Community Library.

Transitions of Care

Utilizing your EHR to implement the 4Ms in transitions of care

At discharge, manage impairments that reduce mobility and support creation of a safe home environment. Checklists may assist older adults and family caregivers in creating an aging-in-place friendly home. Consider adding checklists, such as the [“Check for Safety – A Home Fall Prevention Checklist for Older Adults”](#) from the Centers for Disease Control and Prevention (CDC), and handouts, such as the [“MyMobility Plan”](#) from the CDC, in patient handouts printed directly from the EHR with the after-visit summary.

Ensure older adults have timely outpatient follow-ups scheduled with primary care, specialists, and/or physical therapy and occupational therapy as necessary. Additionally, provide options for referrals to area agencies on aging (AAAs), community-based organizations, and/or centers for independent living (CILs).

In Epic: Ensure clinicians have appropriate consult orders available and suggested within discharge order sets.

Care management should ensure that adaptive/assistive devices and medications are available to older adults and that support systems are in place for assisting older adults in pursuing continued appropriate prevention, identification, treatment, and management of dementia, depression, and delirium. Further, ensure care managers have available documentation for medication availability and understanding following education.

In Epic: Consider implementing a system list for care managers displaying patients 65 and older with discharge orders. Further, consider implementing the cognitive computing risk of fall (v. August 2018) and readmission models, available within Galaxy. Care managers should have discharge planning tools to encourage follow-up with outpatient resources. Scheduled appointments should be displayed on the After Visit Summary (AVS) along with suggested patient education handouts. Flowsheets should be available to document confirmation that adaptive/assistive equipment is present and older adult and/or family caregiver is educated on its use.

Ambulatory Implementation

Utilizing your EHR to implement the 4Ms in the outpatient primary care setting with older adults

When using these guidelines for implementing the 4Ms in your EHR, validate both content and workflow inside your organization. Provide 4Ms documentation for all specialties across the continuum of care.

In Epic: Begin your build by creating a CER (rule) record. Choose a criterion of patient age, excluding patients under 65 years of age (e.g., “Patient Age is not less than 65 years”). This rule will be used as your filter where CER rules are accepted throughout your build. Skip this step if all components of the 4Ms will be used for all patients regardless of age. The same rule may be shared between inpatient and outpatient contexts.

The following components will be integrated into a SmartSet recommended for patients ages 65 and over.

What Matters

What Matters means *knowing and aligning care with each older adult’s specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care*. The [“What Matters” to Older Adults? A Toolkit for Health Systems to Design Better Care With Older Adults](#) and www.ihf.org/AgeFriendly website has more detailed guidance about how to put What Matters into practice as part of the 4Ms.

Assess

First, in both initial intake documentation and office visit documentation, create a “What Matters to the older adult/family caregiver” flowsheet row. Then, use the same row across settings to allow comprehensive review of older adult information.

Document the older adult’s answer in the EHR if not already documented via patient portal. A multi-response answer may be used to list the most common responses to What Matters. Examples of potential answers include: family connections, social activity, independence, decline to discuss, or other (with space for comments). Validate a comprehensive list of options with clinicians across the continuum of care.

In addition, use a flowsheet row or patient questionnaire for a specific response of What Matters to the older adult in their own words, such as attending an upcoming family event or rejoining a group or class each week. Include the information documented here on the older adult’s summary report in a conspicuous location. Ensure it appears to care team members across the continuum of care. Ask all patients What Matters, regardless of age.

In Epic: Build two multi-select flowsheet rows as detailed above for general What Matters options and a third for details of the older adult's response of What Matters. Build a flowsheet group for your What Matters questions and embed the flowsheet rows. Include the group containing the flowsheet rows in the admission navigator and within the flowsheets activity. Build a print group (LPG) to display the older adult/family caregiver answers to clinicians.

A print group (LPG) should show these items at the top of a rounding report, Kardex/SBAR/Snapshot, or similar report in addition to the 4Ms report.

If using MyChart Bedside, create a questionnaire available to older adults and enable the older adult or family caregiver to answer. Responses should be enabled to file to the above flowsheets with clinician validation.

Use the Advance Care Planning activity or incorporate it into a single centralized tool to encourage comprehensive viewing and documentation of advance directives, proxies, MOLST/POLST, etc.

Act On

Use the information documented in the assessment to align the care plan with What Matters. Within clinician notes, include documentation of what will be done to address What Matters to each older adult.

In Epic: Incorporate the What Matters flowsheet into medical assistant (MA)/RN workflows. MyChart questionnaire answers should populate these rows if answered previously by the older adult or proxy. The older adult's answers to What Matters should be shown in the Summary reports shown to all clinicians.

Include older adult answers in the clinician note. Default a SmartText into the clinician note that includes information on the clinician actions addressing What Matters to the older adult. In the event that only one clinician will be seeing the older adult, use a SmartData Element (SDE) within a SmartList in the note template to capture the information that would otherwise be captured via flowsheet, above. Pull in MA/RN flowsheet documentation via SmartLink (use the metadata button to link to the provider SDE). Pursue MA/RN documentation wherever possible.

Additionally, consider building a What Matters "dotphrase" to document information as reported by the older adult.

Medication

If medication is necessary, use age-friendly medication that does not interfere with What Matters to the older adult, Mentation, or Mobility across settings of care. [The Guide to Using the 4Ms in the Care of Older Adults](#), pages 39 and 42-43, provides information about Assessing and Acting On Medication in the context of being an Age-Friendly Health System in an ambulatory setting.

Assess

Review for high-risk medication use. Potentially inappropriate medications for older adults include the following:

- Benzodiazepines
- Opioids
- Highly-anticholinergic medications (e.g., diphenhydramine)
- All prescription and over-the-counter sedatives and sleep medications
- Muscle relaxants
- Tricyclic antidepressants
- Antipsychotics

Display medication alternative alerts to all specialties across the continuum of care for older adults 65 and older.

In Epic: Confirm home medications during rooming for every older adult. Ensure suggestions inside smart sets reflect age-appropriate medication choices and doses. Reconciliation and new medication orders should fire alternative alerts to clinician and pharmacists.

From the patient reports, including the 4Ms report and clinician review reports, an age-filtered print group should appear for medications presenting greater risk to patients 65 and older.

Analysts may use Age/Sex medication warnings if using Medi-Span or Multilex and use Geriatric medication warnings if using FDB. These can be built as Medication Rules (RXR) records by your medication warning builder and attached to the medication class as appropriate. Ensure your medication warning builder confirms that the alerts are set appropriately so that they are not filtered out. See the Alternative Alerts section of Galaxy for more information or discuss with your Willow IS or TS.

Act On

Avoid or deprescribe the high-risk medications listed above. If the older adult takes one or more of the medications listed, discuss any concerns the patient may have, assess for adverse effects, and discuss deprescribing with the older adult.

In Epic: Highlight high-risk medications. Consider adding a BPA to deprescribe either when any medications on the list are highlighted or when prescribing any medications on the list.

Mentation

Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care. [The Guide to Using the 4Ms in the Care of Older Adults](#), pages 39-40 and 43-44, provides information about Assessing and Acting On Mentation in the context of being an Age-Friendly Health System in an ambulatory setting.

Assess

Screen for dementia or cognitive impairment and depression. Incorporate your dementia and depression screening tools into your intake and office visit assessment tools. If you do not have an existing tool for dementia screening, try using the [Mini-Cog®](#) screening tool. If you do not have an existing tool for depression screening, consider implementing the [Patient Health Questionnaire \(PHQ-2\)](#) within your organization.

In Epic: Build dementia and depression screening tools and incorporate into your rooming activity and/or enable items to be pulled from a MyChart questionnaire populated by the older adult. These items should be filtered for older adults 65 and older.

Examples of Mini-Cog® and PHQ-2 screens used at other organizations using Epic may be found on the Community Library.

Act On

Consider the impact of dementia on other problems, such as difficulty remembering complicated medication regimens or other treatments, and assist older adults and family caregivers with education and support.

When clinicians add dementia or similar issues to the problem list, enable suggestions for after-visit summary text and supportive resources on which clinicians can also counsel (e.g., the Alzheimer's Association) or consultation with specialty providers as necessary.

In Epic: Use the addition of dementia and similar problems to suggest patient instructions for inclusion in the After Visit Summary via SmartSet. Use the problem list to further suggest referrals to geriatrics, psychiatry, or neurology where appropriate.

Identify and Manage Factors Contributing to Depression

Based on the results of the depression screen, clinicians should manage factors that contribute to depressive symptoms, including sensory limitations (vision, hearing), social isolation, losses of aging (job, income, societal roles), bereavement, and medications.

Consider the need for counseling and/or pharmacological treatment of depression or refer to a mental health provider if appropriate.

Consider implementing tools suggesting items for the problem list based on the completed screen score, including order sets or order set components, note templates, or components of an after-visit summary.

Mobility

Ensure that older adults move safely every day to maintain function and do What Matters. [The Guide to Using the 4Ms in the Care of Older Adults](#), pages 40-41 and 44, provides information about Assessing and Acting On Mobility in the context of being an Age-Friendly Health System in an ambulatory setting.

Assess

Screen for mobility limitations. Incorporate your mobility screening tool into assessments or questionnaires. If you do not have an existing tool, try using the [Timed Up & Go \(TUG\) assessment](#).

In Epic: Create a mobility score that can be documented via questionnaire in MyChart or by clinicians during assessment.

Examples of the Timed Up & Go assessment used at other organizations using Epic may be found on the Community Library.

Act On

Ensure safe mobility. Manage impairments that reduce mobility and support creation of a safe home environment. Include pain scores; strength, balance, or gait; and hazards in home, such as

stairs, loose carpet or rugs, and loose or broken handrails on the patient overview reports along with mobility documentation.

Checklists may assist older adults in creating an aging-in-place friendly home. Consider adding checklists, such as the [“Check for Safety – A Home Fall Prevention Checklist for Older Adults”](#) from the Centers for Disease Control and Prevention (CDC), and handouts, such as the [“MyMobility Plan”](#) from the CDC, in patient handouts printed directly from your EHR with the after-visit summary.

When appropriate, consider adding orders for consult to physical and/or occupational therapy to order suggestions for impairments that often limit mobility.

In Epic: Use the recommendations of your scoring system(s) to suggest SmartGroups for additional orders to address consults or therapies for mobility concerns. Suggest handouts and patient instructions based on the scoring system as well.

Implement mobility goal tracking and reporting from older adults with follow up and support from clinical staff.

In Epic: Consider implementing patient tracking of API or FHIR integration with MyChart.

Include a section within your follow-up visit workspaces for mobility goals and progress since the older adult’s last visit. Flowsheets may be used for tracking over time and pulled into clinician visit notes where appropriate.

Reporting

Utilizing your EHR to report on 4Ms utilization and outcomes

Inpatient Settings

Within the inpatient context, build reports to review compliance with your definition of the 4Ms. Include patient list reports, short- and mid-term documentation compliance, and reporting of medication ordering alerts in addition to long-term outcome reporting. Filter these reports to include older adults ages 65 and older. Preferably, implement views allowing for filtering to see breakdowns of older adults ages 65–74, 75–84, and 85 and over. Compliance should be reviewed per policy and protocol at your organization by nursing and physician leadership in addition to quality and reporting staff to pursue opportunities for improvement.

For long term reports, include 30-day readmission rates, Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), and length of stay metrics as well as options for filtering older adults ages 65–74, 75–84, and 85 and over in addition to an overall view of older adults 65 and older. In addition to EHR reporting, pull baseline harms reporting (not documented within an EHR) for comparison with levels following 4Ms implementation.

For any existing reports, run reports to save baseline data of patient outcomes before 4Ms implementation for later comparison.

In Epic: Use patient list report columns to reflect completed admission and shift documentation. These should look to your organization's required documentation rules, which should be filtered for appropriate required documentation for older adults 65 and older (as detailed above).

Create Reporting Workbench reports for all admitted and recently discharged patients ages 65 and older. In these reports, show compliance of documentation, with a focus on flowsheet documentation. Further, Willow alternative alert reporting should be reviewed by physician and pharmacy leadership regularly.

Create clarity reports if not already implemented for readmissions, HCAHPS, and emergency department visit rates for patients ages 65 and over.

Consider breakdowns for reviewing data across patients 65–74, 75–84, and 85 and over.

Ambulatory Settings

Within the outpatient context, build reports to review compliance with your definition of the 4Ms. Include short- and mid-term documentation compliance in addition to reporting of medication ordering alerts. Filter these reports to older adults ages 65 and older. Preferably, implement views allowing for filtering to see breakdowns of older adults ages 65–74, 75–84, and 85 and over. Compliance should be reviewed per policy and protocol at your organization by nursing and physician leadership in addition to quality and reporting staff to pursue opportunities for improvement.

For long term reports, include information regarding older adults with and without referral or treatment orders based on a corresponding scoring system. For example, when possible, report on older adults with and without a referral to physical or occupational therapy based on the corresponding TUG score. In additional long-term reports, include data on falls, Consumer Assessment of Healthcare Providers and Systems Clinician and Group Survey (CG-CAHPS), and emergency department visit rates for older adults ages 65 and over seen since implementation of the 4Ms and within a given reporting period (e.g., 1, 3, and 6 months).

In Epic: Create Reporting Workbench reports for all admitted and recently discharged patients ages 65 and older. In these reports, show compliance of documentation, with a focus on scoring within flowsheet documentation. Consider implementing a reporting to review use of an implemented What Matters SmartText within clinician notes in comparison to the number of patients ages 65 and older seen.

Willow alternative alert reporting should be reviewed by physician and pharmacy leadership regularly. Before implementation of 4Ms criteria, save baseline data of patients on high-risk medications for later comparison post-live (e.g., 1, 3, and 6 months).

Create clarity reports looking to patients with documentation indicating a need for follow-up and appropriate completed. Examples may include referral to physical or occupational therapy based on documented TUG score, or organizationally-validated appropriate treatment started based on Mini-Cog© screen score indicating need for treatment. Create clarity reports if not already implemented for falls, CG-CAHPS, and emergency department visit rates for patients 65 and over seen since implementation of the 4Ms and within a given reporting period (e.g., 1, 3, and 6 months).

Consider breakdowns for reviewing data across patients 65–74, 75–84, and 85 and over.

Conclusion

While there is still a larger need to ensure that all EHRs support the documentation and implementation of the 4Ms model, this guide was designed to help health systems get started. All content and workflow should be validated inside your health system and all policies and procedures should be updated to reflect any adopted build. Further, building the 4Ms in the EHR is simply a starting point. Health systems should consider the barriers to making electronic data useable and interoperable, understand how this tool might integrate into existing clinical workflows, and plan to train staff on how workflows will change. The goal is to ensure the 4Ms can be documented and used in a reliable and efficient way to ensure that care is consistent with the 4Ms across care settings.

We welcome feedback and shared learnings. Email us at: AFHS@IHI.org.