Objectives

- Describe the evolution of the Age-Friendly Health System movement.
- Explain the four essential elements that comprise the “4Ms” framework of an Age-Friendly Health System.
- Identify at least one tool that can be used to implement Age-Friendly Care in your organization in the new normal.

Case

90 yo woman with 8 years of progressive “forgetfulness” (diagnosed with Alzheimer’s Disease 1 yr ago), well controlled hypertension, diabetes.

- Lives with daughter who provides care
- Walks with walker but recent history of falls and started to need assistance walking
- Admitted to the hospital for a skin infection
- Hospital stay complicated by delirium, bed rest during stay
- No advance directives and no clear durable power of attorney
- Discharged bedbound, non-verbal with ongoing delirium, blood pressure low on her prescribed blood pressure medications
- Develops pressure ulcers, further weight loss
- Cardiac arrest within a week after discharge, CPR performed and died in the ER

Disclosures

- No financial disclosures
Health Care for Older Adults Needs to Improve

- > 30% of older adults prescribed potentially inappropriate medications yearly
- Falls result in > 2.8 million injuries treated in ERs annually, over 800,000 hospitalizations
- Only 50% of those with dementia are diagnosed
- Even though the average older adult spends 17 “contact days” per year engaged in healthcare

What is Age-Friendly Care?

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

Age-Friendly Health Systems

Lack of Evidence-Based Care for Older Adults

- We have lots of evidence-based geriatric-care models of care that have proven very effective
- Yet, most reach only a portion of those who could benefit
  - Difficult to disseminate and scale
  - Difficult to reproduce in settings with less resources
  - May not translate across care settings

Slide adapted from AGS 2019 meeting
The Know-Do Gap

Yesterday  Today  Tomorrow

What we know  What we do

The 4Ms© of Age Friendly Health Systems

What Matters  Mobility  Medication

Framework

Mentation

Age-Friendly Health Systems

Development of the Age-Friendly Health Systems Initiative

Methods: Reviewed 17 care models with level 1 or 2a evidence of impact for model features

Research review led to over 90 care features identified

Similar concepts removed: 13 discrete care features remained

Expert Meeting led to the selection of the “vital few”: the 4Ms

Age-Friendly Health Systems

Age-Friendly Care Achieves the Triple Aim

What Matters:
- Lowers inpatient utilization (54% dec), ICU stays (80% dec) [AHRO 2013]

Medications:
- 1500 hospitals reduced 15,611 adverse drug events saving $78m across 34 states [HRET 2017]

Mentation:
- 16:1 ROI on delirium detection & treatment programs (Ruan 2013)

Mobility:
- 30+% dec in total hospital costs for patients who receive mobility CARE [Klein 2015]

Evidence-base

The IHI Triple Aim

Population Health  Experience of Care  Per Capita Cost

Age-Friendly Health Systems

Slide adapted from AGS 2019 meeting
The 4Ms© of Age Friendly Health Systems

Key Points regarding IHI’s 4Ms

All 4 Ms are a framework and are meant to be implemented together and reliably

Can be implemented across entire health systems and/or in individual practices/sites

Should be incorporated into existing care rather than layered on top

Tools used to implement the 4Ms may vary

But should be evidence based (examples to follow)

And fit with your particular setting

The 4 Ms© of Age-Friendly Care

What Matters

Know and align care with an older adult’s health outcome goals and care preferences including, but not limited to end-of-life care, and across settings of care

Medications

If medication necessary, use Age-Friendly meds that do not interfere with What Matters, Mobility, or Mentation across settings of care

Mentation

Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care

Mobility

Ensure that older adults move safely every day to maintain function and do What Matters

5 Pioneers for Age-Friendly Health Systems

Slide adapted from AGS 2019 meeting
**How 4Ms are Operationalized**

**Age-Friendly Health Systems**

4Ms: What Matters, Medication, Mentation, Mobility

**Assess**
Know about the 4Ms for each older adult in your care

**Act On**
Incorporate the 4Ms into the plan of care

---

4 M: What **M**atters

**Assess**
- Ask the older adult What Matters most, document it, and share What Matters across the care team

**Act**
- Align the care plan with What Matters most

---

4 M: What **M**atters (Tools)

“**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?”

For those with serious illness:

“What are your most important goals if your health situation worsens?”

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IHI.org/Agefriendly

IHI Age Friendly Health Systems Guide to Using 4Ms Care

IHI Age Friendly Health Systems Guide to Using 4Ms Care

IHI Age Friendly Health Systems Guide to Using 4Ms Care
4 M: What **M**atters Tools (a few examples)

- **Patient Priorities Care**
  
  [https://patientprioritiescare.org/](https://patientprioritiescare.org/)

- **The Conversation Project**
  
  [https://theconversationproject.org/](https://theconversationproject.org/)

- **Stanford Medicine Letter Project**
  
  [https://med.stanford.edu/letter.html](https://med.stanford.edu/letter.html)

4 Ms: **M**edications

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

4 Ms: **M**edications Tools (examples)

- **American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults**

- **Desprescribing.org**

- **CDC Medication Personal Action Plan**
### 4 Ms: **M**entation

**Assess**
- Screen for
  - Cognitive impairment
  - Depression
  - Delirium (mostly inpatient)

**Act**
- Provide evidence-based management of delirium, dementia, and/or depression when identified

### 4 Ms: **M**obility

**Assess**
- Screen for mobility limitations
- Consider screening for functional impairment

**Act**
- Provide an evidence-based plan to improve mobility
- Create plan to further assess/address functional impairments

### 4 Ms: **M**entation Tools (examples)

- Depression:
  - PHQ-2
  - PHQ-9
  - Geriatric Depression Scale (GDS)

- Dementia
  - Mini-Cog
  - SLUMS (St. Louis Mental Status Exam)
  - RUDAS (Rowland Universal Dementia Screening Tool)

### 4 Ms: **M**obility Tools (examples)

- Timed Up and Go (TUG)
4Ms: Mobility (Tools - cont)

- Functional Assessment (examples)
  
  **Barthel Index** - Activities of Daily Living (ADLs)

<table>
<thead>
<tr>
<th>Task</th>
<th>Points</th>
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<tbody>
<tr>
<td>Feed Self</td>
<td>5</td>
</tr>
<tr>
<td>Dress Self</td>
<td>0</td>
</tr>
<tr>
<td>Use Toilet</td>
<td>5</td>
</tr>
<tr>
<td>Bathe Self</td>
<td>0</td>
</tr>
<tr>
<td>Transfer</td>
<td>0</td>
</tr>
<tr>
<td>Get Out of Bed</td>
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</tr>
<tr>
<td>Sleep</td>
<td>0</td>
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<tr>
<td>Walk</td>
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<td>5</td>
</tr>
<tr>
<td>Bladder Control</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
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</table>

  **Lawton Index** - Instrumental ADLs (iADLS)

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<td>Shopping</td>
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<td>Laundry</td>
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<tr>
<td>_phone service</td>
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</tr>
<tr>
<td>Use Telephone</td>
<td>1</td>
</tr>
<tr>
<td>Take Meds</td>
<td>1</td>
</tr>
<tr>
<td>Toilet use</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
</tbody>
</table>

Area Agencies on Aging Core Services

Find yours via Eldercarelocator.gov

Image from n4A.org

OAA= Older Amer. Act

Area Agencies on Aging can connect to Evidence Based Programs for 4Ms

Crosswalk | Evidence-Based Leadership Council Programs & the 4 Ms

The 4 Ms (What Matters, Medication, Mentation and Mobility) are the cornerstone of the John A. Hartford Foundation’s efforts to create Age-Friendly Health Systems (AFHS).

AAA and 4Ms example

Program Description

- **4Ms**
  - Neurontin
  - Promotion of self-management
  - Mental Health self-help, personal health (Goal: 2.0, new skills to engage in various activities and develop cognitive strengths)
  - Cognitive training
  - Personalized training
  - Quality of life and independence (Goal: 4-5, new skills need to engage in various activities and develop cognitive strengths)
  - Personalized training
  - Quality of life and independence

Relevant Outcomes

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Falls</td>
<td>Reduced risk of falls</td>
</tr>
<tr>
<td>Function</td>
<td>Improved function</td>
</tr>
<tr>
<td>Social</td>
<td>Improved social interaction</td>
</tr>
<tr>
<td>Quality of Life</td>
<td>Improved quality of life</td>
</tr>
</tbody>
</table>

Aging and Disability Business Institute: Using Evidence-Based Programs to Promote Age-Friendly Health Systems (April 8, 2019)
### Evidence-based AAA Resources that Support the 4Ms (examples)

<table>
<thead>
<tr>
<th>Matter of Balance (fall prevention)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhance Fitness</td>
</tr>
<tr>
<td>Enhance Wellness</td>
</tr>
<tr>
<td>HomeMeds</td>
</tr>
<tr>
<td>Self-Management Programs</td>
</tr>
<tr>
<td>• e.g. Chronic Disease Self-Management</td>
</tr>
<tr>
<td>Program to Encourage Active, Rewarding Lives (PEARLS)</td>
</tr>
</tbody>
</table>

### Putting the 4 Ms together - Case

- Mr. Rivera is an 85 year old man with a history of falls, moderate COPD, and depression who comes to clinic for an Annual Wellness Visit.

### Operationalizing the 4Ms

#### Outpatient examples:
- Annual Wellness Visit
- 4Ms screening at regular intervals embedded in clinic flow

### Mr. Rivera’s visit

#### Assessment:
- What Matters:
  - He is asked if he has an advance directive and asked what he values most.
  - **Answer: no advance directive. Gets the greatest joy from walking his dog in the neighborhood and spending time with family**
  - After discussion, he worries that he will get injured from a fall and not be able to walk his dog
Mr. Rivera’s visit

Assessment

- **Mentation:**
  - Mini-Cog 5/5 (normal)
  - PHQ-9: 2 (minimal, no depression)
- **Mobility:**
  - Timed Up and Go: 20 seconds (normal <14), difficulty rising from the chair and low step height.

Case 4 M’s Plan

**What Matters** – prioritized fall prevention in his plan. Provided handout from the Conversation Project and will follow up at next visit.

**Medications** discussed risks of zolpidem particularly given his goal of avoiding falls. Educated on non-pharmacologic sleep measures

**Mobility**: medications optimized, referred for physical therapy and referred to his AAA to locate a fall prevention program

Mr. Rivera’s visit

Assessment

- **Medications:**
  - All prescription and over the counter meds reviewed.
  - 4 medications, list verified
  - It is identified that he is on the following high risk medications: zolpidem for sleep

Addressing the 4Ms in the era of COVID-19

Review 4Ms during telephone/telemedicine visits

Telemedicine Annual Wellness visits
4Ms via Phone/Video Visits

**What Matters**
- What matters now
- COVID-19 care preferences

**Mobility**
- Exercise plan
- Observe mobility (telemed)

**Medications**
- Review medications
- Able to obtain and safely take?

**Mentation**
- Brief mental status exam
- Depression screen
- Discuss mental and social engagement plan

Recall the initial Case

90 yo woman with 8 years of progressive “forgetfulness” (diagnosed with Alzheimer’s Disease 1 yr ago), well controlled hypertension, diabetes.

- Lives with daughter who provides care
- Walks with walker but recent history of falls and started to need assistance walking
- Admitted to the hospital for a skin infection
- Hospital stay complicated by delirium, bed rest during stay
- No advance directives and no clear durable power of attorney
- Discharged bedbound, non-verbal with ongoing delirium, blood pressure low on her prescribed blood pressure medications
- Develops pressure ulcers, further weight loss
- Cardiac arrest within a week after discharge, CPR performed and died in the ER

Virtual Annual Wellness Visit (AWV) during COVID-19

- CMS allowing telehealth AWV
- 4Ms already part of AWV
- Can use patient reported vitals

Case – Age-Friendly Version

90 yo woman with well-controlled hypertension, diabetes is followed in primary care that implements the 4Ms.

- Mini-cog abnormal, noted to need help with IADLs → underwent additional evaluation and diagnosed with mild Alzheimer’s disease
- Discussed priorities with her physician and daughter, which were to spend time with family. Selected her daughter as her health care proxy.
- Abnormal Timed Up and Go → referred to a community based exercise program and educated on home safety
- High risk medications deprescribed
- A few years later, admitted to the hospital for a skin infection
- Hospital stay complicated by delirium, but was mild due to hospital delirium protocols
- Kept active during her stay. Needed a walker after the hospital stay and returned home with her daughter with home health services.
- As her disease reached its final stages, her daughter enrolled her in hospice services and she was able to spend her last days at home with her family.
IHI’s Age Friendly Health Systems Initiative Goals

Specific Aims:

• By 12/31/20: Reach older adults in 20% of U.S. hospitals & practices recognized as Age-Friendly Health Systems

• By 6/30/23: Reach older adults in 2500 hospitals & practices and 100 post-acute communities recognized as Age-Friendly Health Systems

IHI.org/Age Friendly

IHI Age-Friendly Survey - excerpt

Appendix C: 4Ms Age-Friendly Care Description Worksheet — Ambulatory/Primary Care

IHI Age-Friendly Health Systems Guide to Using 4Ms Care

IHI Age-Friendly Health Systems Action Community

Recognition from IHI: Hospitals, Practices and Post-Acute Communities Can Achieve Two Levels

Hospitals, practices and post-acute communities have described how they are putting the 4Ms into practices (full description survey)

as of August 2020

www.ihi.org/AgeFriendly
Conclusions

- Gaps remain between evidence and care for older adults
- The Age-Friendly Health Systems Initiative (based on 4Ms) is a rapidly spreading paradigm to more rapidly close that gap
- There are myriad resources to support your Age-Friendly Care. IHI.org/Agefriendly

Questions

THANK YOU