

## Age-Friendly Health Systems: The 4Ms

By: Terry Fulmer, PhD, RN, FAAN and Amy Berman, RN, LHD, FAAN, The John A. Hartford Foundation  
Kedar Mate, MD, and Leslie Pelton, MPA, The Institute for Healthcare Improvement

**WHY:** The number of older adults with complex needs is growing quickly while safe, effective and reliable care is a pressing need. Current health systems are not adequately prepared to handle these complex needs and older adults are at the greatest risk for preventable harms and death as a result of their healthcare experience. Researchers, clinical geriatric specialists, and health system leaders refined previous evidence-based geriatric models into a set of four core features known as the “4Ms.” These core features form the basis for age-friendly care and provide healthcare providers with interventions and action steps when providing care to older adults (Fulmer, 2016; Mate, Berman, Laderman, Kabcenell, & Fulmer, 2017). The 4Ms form the gateway into best practices for older adults.

**BEST TOOL:** The 4Ms address the gap between the evidence-based models of health care for older adults and the care that our health systems put into practice. The 4Ms include:

1. **What Matters:** Know and act on each patient’s specific health outcome goals and care preferences.
2. **Mobility:** Maintain mobility and function and prevent/treat complications of immobility.
3. **Medication:** Optimize use to reduce harm and burden, focusing on medications affecting mobility, mentation, and what matters.
4. **Mentation:** Focus on delirium and dementia and depression.

**TARGET POPULATION:** The 4Ms are appropriate for use with healthy and frail older adults across the continuum of care.

### VALIDITY AND RELIABILITY:

- **Asking What Matters:**
  - Lowers inpatient utilization (↓54%) and ICU stays (↓80%), increases hospice use by 47.2%, and improves patient satisfaction (Agency for Healthcare Research and Quality (AHRQ), 2013)
  - Gives significant time back to patients (Haas et al., 2018)
- **Mobility:**
  - Older adults who sustain fall-related injury required an additional \$13,316 in hospital operating cost and increased length of stay of 6.3 days (Wong et al., 2011)
  - 30+% reduction in direct, indirect, and total hospital costs among patients who received care to improve mobility (Klein, Mulkey, Bena, & Albert, 2015)
- **Medications:**
  - Older adults suffering adverse drug events have higher rates of morbidity, hospital admission and costs (Field et al., 2005)
  - 1500 hospitals in Centers for Medicare & Medicaid Services Hospital Engagement Networks (CMS HEN) 2.0 reduced 15,611 adverse drug events saving \$78 million across 34 states (Health Research and Educational Trust (HRET), 2017)
- **Mentation:**
  - Depression in ambulatory care doubles cost of care (Unützer et al., 2009)
  - 16:1 return on investment (ROI) on delirium detection and treatment programs (Reuben et al., 2013)

**STRENGTHS AND LIMITATIONS:** The 4Ms have been systematically refined to provide the best age-friendly care possible for older adults by accredited experts. It is appropriate for all clinical settings and provides a framework that system healthcare providers can easily follow. These 4Ms have quickly shown positive outcomes throughout the participating health systems with continued improvement expected. More remains to be done to deploy the 4Ms in at least 20% of U.S. hospitals and health systems by December 2020.

### MORE ON THE TOPIC:

- Best practice information on care of older adults: <https://consultgeri.org>.  
Fulmer, T., & Chernof, B. (Eds.). (2019). *Handbook of geriatric assessment* (5<sup>th</sup> ed.). Jones & Bartlett Learning.  
Fulmer, T., & Li, N. (2018). Age-friendly health systems for older adults with dementia. *The Journal for Nurse Practitioners*, 14(3), 160-165.  
Hass, S., Jacobs, B., Schwartz, M., & Joshi, M. (2018) Measuring patient quality of life: Time is what matters. Available at NEJM Catalyst: <https://catalyst.nejm.org/patient-quality-time-is-what-matters>  
Mate, K. S., Berman, A., Laderman, M., Kabcenell, A., & Fulmer, T. (2017) Creating Age-Friendly health systems: A vision for better care of older adults. *Healthcare*, 6(1), 4-6. doi: <https://doi.org/10.1016/j.hjdsi.2017.05.005>  
Pelton, L., Mate, K., Fulmer, T., & Berman, A. (2018). Creating age-friendly health systems. *Health Progress Report*, 87-88.

**REFERENCES:**

Agency for Healthcare Research and Quality (AHRQ). (2013). System-Integrated Program Coordinates Care for People With Advanced Illness, Leading to Greater Use of Hospice Services, Lower Utilization and Costs, and High Satisfaction. (n.d.). Retrieved August 9, 2018 from <https://innovations.ahrq.gov/profiles/system-integrated-program-coordinates-care-people-advanced-illness-leading-greater-use>.

Field, T. S., Gilman, B. H., Subramanian, S., Fuller, J. C., Bates, D. W., & Gurwitz, J. H. (2005). The costs associated with adverse drug events among older adults in the ambulatory setting. *Medical Care*, 43(12), 1171-1176.

Fulmer, T., & Berman, A. (2016, November 3, 2016). Age-Friendly Health Systems: How Do We Get There? Accessed August 8, 2018, from <http://healthaffairs.org/blog/2016/11/03/age-friendly-health-systems-how-do-we-get-there>

Health Research & Educational Trust (HRET). (February 2017). Adverse Drug Events Change Package: 2017 Update. Chicago, IL: Health Research & Educational Trust. Accessed August 9, 2018 at [www.hret-hiin.org](http://www.hret-hiin.org).

Klein, K., Mulkey, M., Bena, J. F., & Albert, N. M. (2015). Clinical and psychological effects of early mobilization in patients treated in a neurologic ICU: A comparative study. *Critical Care Medicine*, 43(4), 865-873.

Mate, K. S., Berman, A., Laderman, M., Kabcenell, A., & Fulmer, T. (2017) Creating Age-friendly health systems: A vision for better care of older adults. *Healthcare*, 6(1), 4-6. doi: <https://doi.org/10.1016/j.hjdsi.2017.05.005>

Reuben, D. B., Evertson, L. C., Wenger, N. S., Serrano, K., Chodosh, J., Ercoli, L., & Tan, Z. S. (2013). The University of California at Los Angeles Alzheimer's and Dementia Care Program for Comprehensive, Coordinated, Patient-Centered Care: Preliminary data. *Journal of the American Geriatrics Society*, 61(12), 2214-2218.

Unützer, J., Schoenbaum, M., Katon, W. J., Fan, M. Y., Pincus, H. A., Hogan, D., & Taylor, J. (2009). Healthcare costs associated with depression in medically ill fee-for-service Medicare participants. *Journal of the American Geriatrics Society*, 57(3), 506-510.

Wong, C. A., Recktenwald, A. J., Jones, M. L., Waterman, B. M., Bollini, M. L., & Dunagan, W. C. (2011). The cost of serious fall-related injuries at three Midwestern hospitals. *Joint Commission Journal on Quality and Patient Safety*, 37(2), 81-87.

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## The 4Ms: Interventions and Actions

<b>High-Level Interventions</b>	
<b>What Matters</b>	<ul style="list-style-type: none"> <li>• Know what matters: health outcome goals and care preferences for current and future care, including end-of-life care and across care settings</li> <li>• Act on what matters for current and future care, including end-of-life care and across care settings</li> </ul>
<b>Mobility</b>	<ul style="list-style-type: none"> <li>• Implement an individualized mobility plan</li> <li>• Create an environment that enables mobility and promotes function</li> </ul>
<b>Medication</b>	<ul style="list-style-type: none"> <li>• Implement a standard process for Age-Friendly medication</li> <li>• De-prescribe and adjust dosage and frequency to be Age-Friendly</li> </ul>
<b>Mentation</b>	<ul style="list-style-type: none"> <li>• Ensure adequate nutrition and hydration, sleep, and comfort</li> <li>• Engage and orient to maximize independence and dignity</li> <li>• Identify, treat, and manage dementia, delirium, and depression</li> </ul>

Source: Institute for Healthcare Improvement. (2017). The 4Ms Age-Friendly Framework. Available at: <http://www.ihl.org/Engage/Initiatives/Age-Friendly-Health-Systems/Pages/default.aspx>