

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

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



## Age-Friendly Health Systems

The Age-Friendly Health Systems initiative is funded by The John A. Hartford Foundation and led by the Institute for Healthcare Improvement, in partnership with the American Hospital Association and the Catholic Health Association of the United States. An age-friendly approach will measurably improve the quality of care for older adults and optimize value for health systems. An Age-Friendly Health System is a health care system in which:

- Older adults get the best care possible;
- Health care–related harms to older adults are dramatically reduced and approaching zero;
- Older adults are satisfied with their care; and
- Value is optimized for all—patients, families, caregivers, health care providers and health systems.

## Evidence-Based Programs

Evidence-based programs have been rigorously tested in controlled settings, proven effective and translated into practical models that are widely available to community-based organizations. The evaluations of these programs have also been subjected to critical peer review. That is, experts in the field—not just the people who developed and evaluated the program—have examined the evaluation’s methods and agreed with its conclusions about a program’s effects.

## PROGRAM

### A Matter of Balance Lay Leader Model

A Matter of Balance is a community-based, small-group (eight to 12 participants) program that helps older adults reduce their fear of falling and increase activity levels. It is a train-the-trainer program with Master Trainers training Coaches (lay leaders). Coaches work in pairs to lead small group community classes consisting of eight two-hour sessions. The behavior-change curriculum addresses the fear of falling and engages participants to view falls and the fear of falling as controllable. Participants are involved in group discussion, problem-solving, skill-building, assertiveness training, sharing practical solutions and exercise training.

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>A Matter of Balance targets community-dwelling older adults (60+) who are concerned about falls, are becoming socially isolated to avoid falling and are interested in improving their flexibility, balance and strength.</p> <p>Outcomes include:</p> <ul style="list-style-type: none"> <li>• Reduced falls risk and fear of falling</li> <li>• Improved falls self-management</li> <li>• Improved falls self-efficacy (personal beliefs in one’s ability to engage in certain activities of daily living without falling or losing balance)</li> <li>• Increased physical activity</li> <li>• Reduced social isolation</li> </ul> <p>In 2013, CMS showed \$938 in savings for Medicare beneficiaries who participated in MOB/LLM.<sup>i</sup> These savings were driven by a \$517 reduction in unplanned hospitalization costs, a \$234 reduction in skilled nursing facility costs and an \$81 reduction in home health costs.</p>	<p>One session of A Matter of Balance includes the role medications play in fall risk. Participants learn the importance of asking their physicians about medications and their own role in taking them appropriately.</p>	<p>During the eight small-group sessions, a supportive network of peers is developed.</p> <p>The structured activities include group discussion, problem-solving, skill building, assertiveness training, videos, sharing practical solutions and exercise training.<sup>ii</sup> A small group (eight to 12 participants) and cognitive restructuring are critical to understanding the intervention.</p> <p>Outcomes include reduced isolation and increased activity.</p> <p>In the recently released CMS Prospective Study of Wellness Programs, researchers found “Falls prevention programs had significant impacts on several mental health measures including the overall mental components summary score, the role emotional subscale, the mental health subscale and the social functioning subscale.”</p>	<p>The eight-session curriculum for A Matter of Balance includes exercises to improve strength and balance.</p> <p>Outcomes include:</p> <ul style="list-style-type: none"> <li>• Reduced falls risk and fear of falling</li> <li>• Improved falls self-management</li> <li>• Improved falls self-efficacy and increased physical activity</li> </ul>

## PROGRAM

### Enhance®Fitness (EF)

An ongoing group exercise class for “near frail” to more active adults held three times per week in hourly sessions. Instructor-led classes include cardiovascular workouts, dynamic/static balance exercises, posture focus, strength training and stretching. Designated as a CDC Arthritis Approved Evidence-Based Intervention.

WHAT MATTERS	MEDICATIONS	MENTATION	MOBILITY
<p>Program focus is to improve the overall functional fitness and well-being of older adults. The ongoing nature of class provides social engagement and purposeful structure.<sup>iv</sup></p> <p>A 2013 retrospective study found that EF participation was associated with:<sup>i</sup></p> <ul style="list-style-type: none"> <li>• An estimated total annual medical cost savings of \$945</li> <li>• A decrease in the number of unplanned hospitalizations</li> <li>• A decreased mortality rate among participants</li> </ul>	<p>Anecdotal evidence suggests that program participants may decrease their use of pain and blood pressure medication if they experience improvement as a result of physical activity engagement.</p>	<p>The ongoing nature of the class structure creates a socially enduring unit that is supportive of consistent physical activity and peer interaction benefits.</p> <p>The original research study showed a 52 percent improvement in depression and 13 percent improvement in social function.<sup>iv</sup></p>	<p>EF supports individual goal setting with baseline and regularly scheduled fitness assessments in an ongoing group exercise class.<sup>iii</sup></p> <p>Research studies have shown:</p> <ul style="list-style-type: none"> <li>• Improvement among program participants in physical functioning.<sup>iv</sup></li> <li>• Improved muscle strength, agility/balance and blood pressure<sup>v</sup></li> <li>• Improved physical performance fitness assessments, high satisfaction and high confidence to exercise regularly<sup>vi</sup></li> <li>• Association between program participation and a reduced risk of falls resulting in medical care. Consistent use of EF was associated with the greatest reduction in risk of a medical fall, lowering risk by 20-30 percent.</li> </ul>

## PROGRAM

### Enhance<sup>®</sup>Wellness

A participant-centered one-to-one motivational health action planning intervention for community-based older adults with chronic conditions and adults aging with disability. EnhanceWellness counselors provide coaching and motivation to individuals as they work on their chosen health challenge. The topic may be anything the participant chooses. Most frequently, program participants choose to become more physically active, cope with depression or eat better.

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>Program focus is to maintain or increase health and functional status. Health action plan topics are participant determined and may include:</p> <ul style="list-style-type: none"> <li>• Self-rating of health</li> <li>• Confidence to talk with physician</li> <li>• Social activity</li> <li>• Alcohol use</li> <li>• Smoking</li> <li>• Depression</li> <li>• Anxiety</li> <li>• Physical activity/ readiness to exercise</li> <li>• Mobility</li> <li>• Nutrition</li> <li>• Body Mass Index (BMI)</li> <li>• Falls history and risk</li> <li>• Use of prescription medications</li> <li>• Medical care utilization</li> <li>• Memory</li> </ul> <p>Results from the original randomized control trial<sup>vii</sup> showed:</p> <ul style="list-style-type: none"> <li>• The total number of inpatient hospital days during the study year was significantly lower in the intervention group compared with controls</li> <li>• The number of hospitalized participants increased by 69 percent among the controls and decreased by 38 percent in the intervention group</li> </ul> <p>Preliminary results in current research with participants aging with disability show improvements in satisfaction with social role, self-efficacy for disability management and quality of life.</p>	<p>Medication management is an option for this self-management intervention.</p> <p>The original randomized control trial results showed a 35 percent decrease in psychoactive drug use.<sup>vii</sup></p> <p>Preliminary results in current research with participants aging with disability show improvements in pain interference.</p>	<p>Health action plan topics are participant determined.</p> <p>Further research found fewer participants were:</p> <ul style="list-style-type: none"> <li>• Depressed (8.8 percent vs. 15.9 percent)</li> <li>• At high nutritional risk (24.3 percent vs. 44.1 percent)<sup>viii</sup></li> </ul> <p>Preliminary results in current research with participants aging with disability show improvements in fatigue, depression, satisfaction with social role, self-efficacy for disability management, quality of life, anxiety and sleep disturbance.<sup>vii</sup></p>	<p>Health action plan topics are participant determined. The six-month program includes individual goal setting/review with regular check-ins to support behavior change.</p> <p>Research found fewer participants were:</p> <ul style="list-style-type: none"> <li>• Physically inactive (15.8 percent vs 38.6 percent)</li> <li>• Experiencing restricted activity days (35 percent vs. 48 percent).<sup>viii</sup></li> <li>• Preliminary results in current research with participants aging with disability show improvements in physical function, physical activity and falls efficacy.<sup>vii</sup></li> </ul>

## PROGRAM

### Fit & Strong!

An eight-week, group-based program that targets individuals with lower extremity osteoarthritis (OA) or other mobility issues. The program meets three times a week for 90 minutes per session over the course of two months.

The first hour encompasses flexibility/balance, low-impact aerobics and systematic lower extremity strength training. The last 30 minutes use a structured health education curriculum to help participants develop individualized plans for managing OA with physical activity (PA). Designated as a CDC Arthritis Approved Evidence-Based Intervention.



WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>Fit &amp; Strong! targets older adults with osteoarthritis who have painful lower extremity joints that prevent their engagement in physician-recommended physical activity. The program helps individuals who are de-activated to become re-activated using a personalized PA routine.</p>	<p>While medication management is not part of Fit &amp; Strong!, the program does address non-pharmaceutical strategies for managing arthritis pain, and has demonstrated significant reductions in lower extremity joint pain at two months that have been maintained at 18 months.</p> <p>Anecdotal evidence suggests that program participants decrease their use of pain medications, and may even be able to cease taking blood pressure medication if their blood pressure improves as a result of PA engagement.</p>	<p>Program participants have also shown a reduction in anxiety/depression at two months (end of program) that was maintained at 18 months.</p>	<p>The original efficacy trial<sup>18</sup> found significant improvements in self efficacy for exercise, PA engagement, lower extremity stiffness and pain at two months that were maintained at six and 12 months.</p> <p>A follow-up effectiveness study found significant gains in PA engagement, lower extremity joint pain and function, and improved lower extremity strength and mobility at two months that were maintained at 18 months.<sup>x</sup></p>

## PROGRAM

### Healthy IDEAS (Identifying Depression, Empowering Activities for Seniors)

A one-to-one program that extends the reach of community-based aging services by integrating depression awareness and self-management interventions into existing case-management service delivery. Healthy IDEAS targets underserved, chronically ill, older adults in the community. It excludes clients who cannot communicate verbally or who have significant cognitive impairment.

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>The program prepares case managers and care coordinators to identify depression in at-risk older adults and to facilitate access to treatment. It addresses commonly recognized barriers to mental health care: detecting depression; helping clients understand depression as treatable; assisting them to gain knowledge and skills to self-manage their symptoms; and linking primary care, mental health care and social service providers. The program empowers clients to manage their depression through a behavioral activation approach that encourages involvement in meaningful, positive activities.</p> <p>Positive outcomes include:</p> <ul style="list-style-type: none"> <li>• Fewer symptoms of depression</li> <li>• Decreased physical pain</li> <li>• Better ability to recognize and self-treat symptoms</li> <li>• Improved well-being through achievement of personal goals</li> </ul>	<p>Staff ask clients about their medication use and adherence, particularly with antidepressant medication. Referral and linkage to the clients' primary care physician or mental/behavioral health provider for medication review is a core component of the program.</p>	<p>Reduction in symptoms of depression on the standardized Geriatric Depression Scale were reported by study participants at three and six months.<sup>xi</sup></p>	<p>Healthy IDEAS participants must choose a specific, measurable, attainable, relevant and time-limited activity goal that has meaning and value to them. Many choose physical activities, such as walking, going on outings and being more active within their home.</p>

## PROGRAM

### HomeMeds

Social workers and staff of aging services organizations use HomeMeds software to identify potential medication problems for their clients. A consultant pharmacist then resolves these problems in partnership with other members of the care team.

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>Complex medication regimens make an active social life difficult. HomeMeds can result in simplification (e.g., extended release rather than multiple doses) or reduction in number of medications (polypharmacy), which may also result in cost reductions.</p>	<p>HomeMeds identifies potential adverse drug effects like falls, dizziness, confusion, low pulse or orthostasis and screens a comprehensive in-home medication inventory to identify possible causes. Pharmacists review alerts and adherence issues and recommend possible changes to prescribers.</p>	<p>HomeMeds screens for psychoactive medications that can cause or exacerbate confusion. Pharmacists may recommend dose reduction or substitute treatment.</p>	<p>HomeMeds addresses medication-related problems, including falls, dizziness or orthostatic hypotension. Pharmacist recommendations may include alternative treatments, dose reduction or de-prescribing.</p>

## PROGRAM

### Self-Management Resource Center Suite of Programs

#### Primary programs

- Chronic Disease Self-Management (CDSMP)
- Diabetes Self-Management (DSMP)(English and Spanish)

#### Other Programs

- Cancer Thriving and Surviving
- Pain self-management
- Positive self-management
- Building better caregivers

#### Modes of delivery

- CDSMP—
  - In-person group (six weeks)
  - Online group (six weeks)
  - Mailed tool kit
- DSMP—
  - In-person group (six weeks)
  - Online group (six weeks)

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>Both primary programs focus on symptom management, including pain, shortness of breath, fatigue, disability and depression. DSMP also focuses on reducing A1C and the symptoms of hypoglycemia.</p> <p>In addition, both programs have sections on how to best use the health care system and how to communicate with health care providers.</p> <p>Both programs have been shown to accomplish these ends.<sup>xii, xiii, xiv, xv, xvi, xvii</sup></p>	<p>CDSMP &amp; DSMP teach the purposes of medication, how to ask about medications, and the differences between side effects and allergies.</p> <p>Both programs have been shown to increase medication adherence.</p>	<p>Both programs have been shown to reduce depression for up to 18 months.</p> <p>Those entering the programs with depressive symptoms in the clinically significant range have been shown to reduce these symptoms by approximately the same amount as anti-depressant medication.<sup>xvi, xvii</sup></p> <p>The CDSMP has been shown to reduce a variety of symptoms and improve health behaviors for those with severe mental illness.<sup>xix</sup></p>	<p>CDSMP &amp; DSMP assist individuals in implementing individual mobility plans and give them guidelines for adjusting these plans as necessary.</p> <p>Both programs have been shown to increase the total number of minutes of exercise over one year.</p> <p>CDSMP has been shown to reduce disability.</p>

## PROGRAM

### The Program to Encourage Active, Rewarding Lives (PEARLS)

is a brief home-based one-on-one program for late-life depression that is delivered by trained providers in home or community social service, mental health and other settings. PEARLS is not appropriate for older adults with significant cognitive impairment.

WHAT MATTERS	MEDICATION	MENTATION	MOBILITY
<p>PEARLS teaches older adults tools to effectively tackle the things in their lives that overwhelm them, and to in turn, improve their depressive symptoms. These tools include a seven-step approach to problem-solving and action planning to increase physical, social and pleasant activities.</p> <p>The PEARLS randomized controlled trial demonstrated a trend toward lower hospitalization rates among those who received the PEARLS Program (24 percent) compared to those who did not (33 percent).</p>	<p>Medication management may be part of PEARLS in several ways:</p> <ul style="list-style-type: none"> <li>• Regular clinical supervisor review of medications for new PEARLS participants and participants who are not improving their depression</li> <li>• Participant chooses to work on medication management during Problem-Solving Treatment</li> </ul> <p>Results may include:</p> <ul style="list-style-type: none"> <li>• Improved adherence to antidepressant treatment (e.g., change in dose or type of existing Rx, start taking an antidepressant by connecting with primary care provider)</li> <li>• Improved prescription management for other chronic conditions (e.g., hypertension, diabetes)</li> </ul>	<p>PEARLS was developed to improve the recognition and treatment of minor depression and dysthymia in low-income older adults living with social isolation, multiple chronic medical problems and physical impairment.</p> <p>In a randomized controlled trial, PEARLS improved depression outcomes for participants vs. usual care participants six months following the intervention, including<sup>xx</sup>:</p> <ul style="list-style-type: none"> <li>• 50 percent or greater reduction in depression symptoms (43 percent of PEARLS recipients vs. 15 percent of the usual care group)</li> <li>• Complete remission from depression (36 percent of PEARLS recipients vs. 12 percent of the usual care group). Greater health-related quality-of-life improvements in both functional and emotional well-being</li> </ul>	<p>Participants regularly plan and engage in physical activities that are appropriate for their level of mobility and function, and the PEARLS counselor/coach works with PEARLS participants to troubleshoot barriers to engagement in physical activity.</p>

## Endnotes

- i Report to Congress: The Center for Medicare & Medicaid Services' Evaluation of Community-Based Wellness and Prevention Programs under Section 4202 (b) of the Affordable Care Act, September 30, 2013.
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- iv Sin M, Belza B, LoGerfo J, Cunningham C. (2005). Evaluation of a Community-Based Exercise Program for Elderly Korean Immigrants. *Public Health Nursing* Vol. 22.
- v Tomioka M, Sugihara N, Braun KL. (2012). Replicating the EnhanceFitness Physical Activity program in Hawaii's multicultural population, 2007-2010. *Prev Chronic Dis.* 9:110155.
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- vii Leveille SG, et al. (1998). Preventing Disability and Managing Chronic Illness in Frail Older Adults: A randomized trial of a community-based partnership with primary care. *Journal of American Geriatrics Society*.
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- x Hughes, S. L., Seymour, R. B., Campbell, R. T., Desai, P., Huber, G., & Chang, H. J. (2010). Fit and Strong: bolstering maintenance of physical activity among older adults with lower-extremity osteoarthritis. *American Journal of Health Behavior*, 34(6), 750-763.
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- xii Lorig, Kate R., et al. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. *Medical care*. 37(1): 5-14.
- xiii Lorig, Kate R., Philip L. Ritter, and Virginia M. González (2003). Hispanic chronic disease self-management: a randomized community-based outcome trial. *Nursing research* 52(6): 361-369.
- xiv Lorig, Kate, et al. (2008). Spanish diabetes self-management with and without automated telephone reinforcement two randomized trials. *Diabetes Care* 31(3): 408-414.
- xv Ory, Marcia G., et al. (2013). Successes of a national study of the chronic disease self-management program: meeting the triple aim of health care reform. *Medical Care* 51(11): 992-998.
- xvi Lorig, Kate, et al. (2016). A Diabetes Self-Management Program: 12-Month Outcome Sustainability From a Nonreinforced Pragmatic Trial. *Journal of Medical Internet Research* 18(12): e322.
- xvii Ibid.
- xviii Ritter, Philip L., et al. (2014). Effects of chronic disease self-management programs for participants with higher depression scores: secondary analyses of an on-line and a small-group program. *Translational behavioral medicine* 4(4): 398-406.
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- xx Ciechanowski, P., et al. (2004). Community-integrated home-based depression treatment in older adults: a randomized controlled trial. *JAMA* 291(13): 1569-1577.

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