Preparing the Current and Future Health Care Workforce for Interprofessional Practice in Sustainable, Age-Friendly Health Systems

Advisory Committee on Interdisciplinary Community-Based Linkages (ACICBL)

17th Annual Report to the Secretary of Health and Human Services and the U.S. Congress

August 2019

HRSA
Health Resources & Services Administration

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The views expressed in this report are solely those of the Advisory Committee on Interdisciplinary, Community-Based Linkages, and do not represent the perspectives of the Health Resources and Services Administration nor the United States Government.

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ACICBL Members

Teri Kennedy, PhD, MSW, LCSW, ACSW, FGSA, FNAP
Chair
Professor and Associate Dean
Interprofessional Practice, Education, Policy and Research (iPEPR)
University of Kansas School of Nursing
The University of Kansas Medical Center
Kansas City, Kansas

James Stevens
Vice Chair
Tribal and Rural Development Consultant
Anchorage, Alaska

Geraldine Bednash, PhD, RN, FAAN
Professor
College of Nursing and Health Sciences
University of Vermont
Burlington, Vermont

Nicole Brandt, PharmD, MBA, BCGP, BCPP, FASCP
Executive Director, The Peter Lamy Center on Drug Therapy & Aging
Professor, Pharmacy Practice & Science
University of Maryland School of Pharmacy
Baltimore, Maryland

Katherine Erwin, DDS, MPA, MSCR
Assistant Professor
Morehouse School of Medicine
Atlanta, Georgia

Joseph H. Evans, PhD
Professor
Munroe-Meyer Institute for Genetics and Rehabilitation
Department of Psychology
University of Nebraska Medical Center
Omaha, Nebraska

Roxanne Fahrenwald, MD, FAAFP
Senior Vice President
Education Integration
Montana Family Medicine Residency
RiverStone Health
Billings, Montana

Robyn L. Golden, MA, LCSW, ACSW, FNAP
Associate Vice President of Population Health & Aging
Assistant Professor of Medicine, Nursing, Psychiatry, and Health Systems Management
Department of Social Work & Community Health
Rush University Medical Center
Chicago, Illinois

Bruce E. Gould, MD, FACP
Associate Dean for Primary Care
University of Connecticut School of Medicine
Director, CT AHEC Program
Farmington, Connecticut

Parinda Khatri, PhD
Chief Clinical Officer
Cherokee Health System
Knoxville, Tennessee

Lisa Zaynab Killinger, DC
Professor of Diagnosis
Palmer College of Chiropractic
Davenport, Iowa

Kamal Masaki, MD
Professor and Chair of the Department of Geriatric Medicine
John A. Burns School of Medicine
University of Hawaii
Honolulu, Hawaii

John E. Morley, MD, BCh
Professor Emeritus
St. Louis University School of Medicine
St. Louis, Missouri

Sandra Pope, MSW
Program Director and PI
West Virginia Area Health Education Centers
West Virginia University
Charleston, West Virginia

Zaldy S. Tan, MD, MPH
Professor and Assistant Dean for Curricular Affairs
Division of Geriatric Medicine
David Geffen School of Medicine
University of California, Los Angeles
Los Angeles, California

Jacqueline R. Wynn, MPH
Director
Health Careers Workforce Diversity & Inclusion
North Carolina Area Health Education Centers Program
Adjunct Assistant Professor, Public Health Leadership
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

Federal Staff

Joan Weiss, PhD, RN, CRNP, FAAN
Senior Advisor, Division of Medicine and Dentistry
Designated Federal Official, ACICBL
U.S. Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
Rockville, Maryland

Daniel Coviello, USPHS, CAPT
Acting Director, Division of Medicine and Dentistry
U.S. Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
Rockville, Maryland

Raymond J. Bingham, MSN, RN
Technical Writer
U.S. Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
Rockville, Maryland

Samantha L. Das, MS
Designated Federal Official Liaison, ACICBL
U.S. Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
Rockville, Maryland

Acknowledgements

The Advisory Committee on Interdisciplinary, Community-Based Linkages (ACICBL) provides advice and recommendations on policy and program development to the Secretary of Health and Human Services (Secretary) and the U.S. Congress concerning the activities under Title VII, Part D, of the Public Health Service Act as authorized by section 757 (42 U.S.C. 294f). The ACICBL is governed by provisions of the Federal Advisory Committee Act (FACA) of 1972 (5 U.S.C. Appendix 2), which sets forth standards for the formation and use of advisory committees.

Each year, the ACICBL selects a topic concerning a major issue within the health care delivery system that is relevant to the mission of the Bureau of Health Workforce (BHW) Title VII, Part D, Interdisciplinary Community-Based Linkages programs. After the ACICBL analyzes the selected topic, it develops and sends recommendations to the Secretary concerning policy and program development. In 2018, the ACICBL identified opportunities to prepare the current and future health care workforce for interprofessional practice in sustainable, Age-Friendly Health Systems.

This report is the culmination of the efforts of many individuals who provided their expertise to the ACICBL over the course of several meetings in Fiscal Year 2018. As noted throughout the report, experts informed the ACICBL and responded to a broad array of issues related to elements comprising Age-Friendly Health Systems, current practices, and reducing clinical burden upon health professionals. The members of the ACICBL express appreciation to all presenters for their time and expertise.

Special thanks to:

- Dr. Terry Fulmer, President, The John A. Hartford Foundation and Dr. Amy Berman, Senior Program Officer, The John A. Hartford Foundation for sharing their knowledge and expertise on Age-Friendly Health Systems;
- Dr. Angelo McClain, Chief Executive Officer, National Association of Social Workers and Dr. Kennita Carter, Senior Advisor, Division of Medicine and Dentistry (DMD), Health Resources and Services Administration (HRSA) for their perspective on clinician well-being and resiliency;
- Dr. Beat Steiner, Professor Family Medicine, Assistant Dean for Clinical Education, University of North Carolina School of Medicine for his thoughts on valuing students as important members of the team; and
- Dr. Gary Epstein-Lubow, Medical Director, Center for Memory Health at Hebrew SeniorLife for his insights on advancing value-based care.

Each of these presentations played a critical role in the preparation of this report. The Committee also extends their gratitude and appreciation to the colleagues and fellow members who contributed to the writing of this report: Joseph H. Evans, PhD; Teri Kennedy, PhD, MSW; Parinda Khatri, PhD; Kamal Masaki, MD; John E, Morley, MD, BCh; Sandra Pope, MSW; and James Stevens.

Finally, this report has benefited from the capable assistance of federal staff from HRSA, BHW, DMD: Dr. Joan Weiss, Designated Federal Official and Senior Advisor, DMD; CAPT Daniel Coviello, Acting Director, DMD; Mr. Raymond Bingham, Technical Writer, DMD; and Ms. Samantha Das, Designated Federal Official Liaison, DMD. The ACICBL deeply appreciates the hard work and dedication of these individuals in producing this report.

Sincerely,

Teri Kennedy, PhD, MSW, LCSW, ACSW, FGSA, FNAP
Chair, ACICBL
Professor and Associate Dean
Interprofessional Practice, Education, Policy and Research (iPEPR)
University of Kansas School of Nursing
The University of Kansas Medical Center
Kansas City, Kansas

Executive Summary

More people in the United States are living healthier lives past 65 years of age and continuing to contribute to society in countless ways; yet, the number of health care professionals specializing in their care, while increasing slowly, has not kept pace with the growing demographics of older adults. By 2030, there will be a need for over a million additional health care professionals just to maintain the current provider-to-population ratios. Presently, the U.S. health care system does not effectively meet the complex needs of the aging population, despite multiple initiatives to create programs and services to provide safe and highly effective care of older adults. Major health care systems are currently participating in a national initiative aimed at transforming 20% of U.S. hospitals and primary care practices to Age-Friendly Health Systems by 2020.

An Age-Friendly Health System goes beyond primary care and its interactions with the community; it promotes interprofessional[1] practice in the health care of older adults as they transition from the community to the emergency department, to the hospital or skilled nursing facility, back into the community. Creating such a system involves understanding and respecting the needs, values, and preferences of older adults and educating health professionals to focus on a 4Ms Framework (what matters, medication, mentation, and mobility. Progress made over the past decade to develop competencies for interprofessional practice and education can inform the process of developing interprofessional competencies to prepare the current and future Age-Friendly Health Systems workforce.

In order to ensure that Age-Friendly Health Systems are sustainable, it is important to recognize the impact of providing comprehensive care for the complex needs of older adults upon the wellness and resilience of health care workers. Burnout is a prevalent problem in the health care delivery system and has been shown to have profound effects on the delivery of care, while increased turnover rates can have a negative impact on the economy and ultimately decrease consumer access to quality health care and continuity of care.

The Health Resources and Services Administration (HRSA) is uniquely positioned to promote the spread of Age-Friendly Health Systems. These areas are addressed in HRSA's Geriatrics Workforce Enhancement Program (GWEP). HRSA's workforce development programs are vital to fulfilling the need for expanding and improving the health care workforce. Clinical training could provide an increased focus on preparing clinicians to deliver care in an age-friendly manner across all types of clinical settings, and HRSA's Title VII programs could accelerate the trend toward Age-Friendly Health Systems, engaging more allied health professionals and institutions.

The recommendations provided in this 17th report of the ACICBL are designed to promote broad changes within the health care system to advance age-friendly practices, train the health care workforce in age-friendly care, and improve the care of older adults, while also facilitating the reduction of burnout and the promotion of wellness and resilience among health care providers.

[1] In recent years, the term "interprofessional" has become widely used in place of "interdisciplinary," focusing on teamwork and collaborative practice in addition to the composition of the team.

ACICBL Recommendations

During its meetings in 2018, ACICBL reviewed issues related to building Age-Friendly Health Systems and reducing clinical burden upon health professionals. The Committee's recommendations are designed to prepare the current and future health care workforce for interprofessional practice in sustainable, Age-Friendly Health Systems.

Recommendations

1. ACICBL recommends that HRSA's Title VII, Part D notices of funding opportunities (NOFOs) include language to prepare the current and future workforce, including students, faculty, practitioners, and direct care workers, to transform integrated primary care clinical learning environments/settings into interprofessional Age-Friendly Health Systems.

2. ACICBL recommends that HRSA's Title VII, Part D funding opportunity announcements should encourage recipients to partner with primary care sites/delivery systems to prepare the current and future workforce to deliver population health care within value-based payment models in interprofessional Age-Friendly Health Systems.

3. ACICBL recommends that health professions programs integrate age-friendly, interprofessional principles into their curricula to prepare a current and future workforce competent to deliver age-friendly health care.

4. ACICBL recommends that HRSA, in collaboration with health professional organizations, academia, and other federal agencies, develop competencies to advance interprofessional practice in Age-Friendly Health Systems.

5. ACICBL recommends that HRSA's Title VII, Part D notices of funding opportunities (NOFOs) include language to train health professions students, faculty, and practitioners in the use of outcome-based meaningful measures aligned with the Age-Friendly Health Systems 4Ms Framework: what matters, medication, mobility, and mentation.

6. ACICBL recommends that HRSA work across divisions and programs to include specific language in their notices of funding opportunities (NOFOs) to develop evidence-based practice models that prevent burnout and foster individual/team wellbeing, resilience, and retention to advance the Quadruple Aim in interprofessional collaborative practice.

Introduction

The aging of the U.S. population, with more people living healthier lives past 65 years of age, is a notable public health success story. Older adults contribute to society in countless ways. Many continue to work past the normal age of retirement. Others may take time to pursue personal interests, serve the community as volunteers, or take on roles as teachers, mentors, and caregivers. Maintaining the health of individuals across the lifespan is increasingly recognized as an important function of health care.

Despite this recognition, the U.S. health care system is poorly designed to help older adults stay well. The system focuses on acute care, placing less emphasis on primary care, social supports, and the prevention and management of chronic conditions of aging. Older adults often have fixed incomes, which can limit their ability to afford health care visits or needed medications. Elders requiring long-term services and supports must often rely on a confusing patchwork of local, community-based programs that may not be covered under Medicare and Medicaid. Furthermore, many older adults have difficulties with transportation, which may limit their access to health care and other services and increase the difficulty of maintaining exercise or obtaining healthy food (Lehning & DeBiasi, 2018). Finally, the health status of older adults is intertwined with broader social determinants of health, but current reimbursement mechanisms do not support a blended response to integrating health/behavioral health with community services.

Age-Friendly Health Systems are designed to address the needs of older adults. The aim of such a system is "to provide evidence-based care via a trained geriatrics workforce, coordinate with a full range of community-based services, and meaningfully engage older adults and their families" (Hartford Foundation, 2018, p. 7). The goals include better health outcomes for older adults, reduced waste, and increased use of cost-effective services. The Health Resources and Services Administration (HRSA) is well positioned to promote the spread of Age-Friendly Health Systems.

Age-Friendly Health Systems

The population of the United States of America is aging rapidly. In 2016, 49.2 million individuals were 65 years of age or older, which will increase to 77.9 million by 2035. There is a marked shortage of health care professionals to provide care for this aging population. In 1992, there were 6,775 geriatricians in the United States (Reuben & Beck, 1994). This number has not significantly increased over time. In 2018, there were 6,952 geriatricians and 1,488 geriatric psychiatrists (American Board of Medical Specialties, AMBS, 2018).

Despite an upward trend, the supply of geriatrics certified physicians is not keeping pace with the demands of an aging population. As listed in **Table 1**, of the number of new allopathic and osteopathic physicians certified in geriatrics in 2008, there were 97 family medicine physicians, 221 internal medicine physicians, and 129 psychiatrists. In comparison, of the number of new physicians certified in geriatrics in 2017, there were 109 family medicine physicians and 199 internal medicine physicians. In 2016, the number of new allopathic physicians certified in geriatrics in psychiatry was 136, as the Geriatrics Psychiatry Board Examination is held every other year. **Figure 1** illustrates the cumulative number of new physicians certified in geriatrics over the past 10 years in the United States.

The growth in the number of nurses and nurse practitioners certified in gerontology is more promising, increasing by 1.5 times from 11,939 certifications in 2008 to 29,447 certifications in 2018 (American Nurses Credentialing Center, ANCC, personal communication, May 6, 2019; see **Figure 2**). It is important to note however, that the latter number may be double-counting professionals with more than one type of certification by the ANCC.

By 2030, there will be a need for over a million additional health care professionals to maintain the current provider-to-population ratios. Presently, the health care system does not sufficiently meet the complex needs of the older population (Harrington & Heidkamp, 2013). This demographic imperative has led the World Health Organization (WHO) to suggest that we need to develop "age-friendly" health care systems (Mate, Berman, Laderman, Kabcenell, & Fulmer, 2018).

Table 1a. Number of new allopathic physicians certified in geriatrics in the United States from 2008-2017 (ABMS report, 2018)

	Year									
Specialty	***2008***	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***	***2015***	***2016***	***2017***
Family Medicine	86	75	90	90	89	98	82	111	85	91
Internal Medicine	221	185	200	169	165	178	163	144	143	196
Psychiatry	129	0	114	0	131	0	131	0	136	0

Figure 1a. Cumulative number of new allopathic physicians certified in geriatrics in the United States from 2008-2017 (ABMS report, 2018)

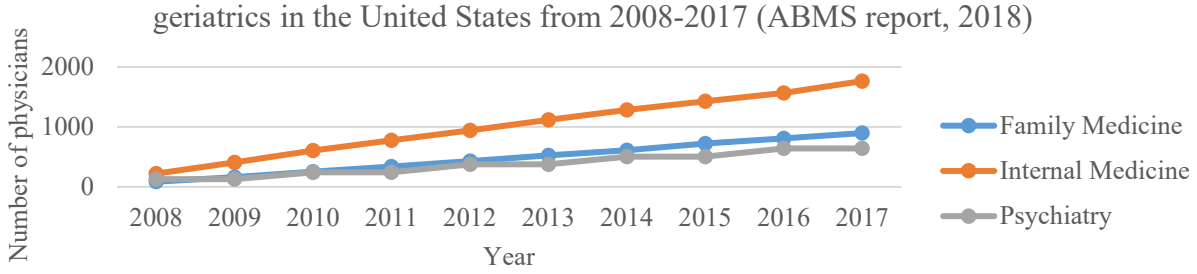


Table 1b. Number of new osteopathic physicians certified in geriatrics in the United States from 2008-2017 (AOBFP reports 2009-2018, personal communication, April 8, 2019)

	Year									
Specialty	***2008***	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***	***2015***	***2016***	***2017***
Family Medicine	11	8	15	16	13	23	17	16	18	18
Internal Medicine	0	4	3	6	2	5	8	9	8	3
Psychiatry	0	0	5	2	2	1	3	3	1	0

Figure 1b. Cumulative number of new osteopathic physicians certified in geriatrics in the United States from 2008-2017 (AOBFP reports 2009-2018, personal communication, April 8, 2019)

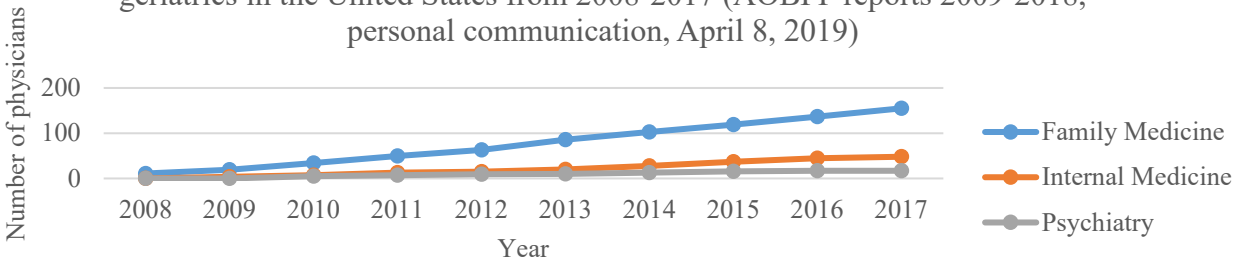
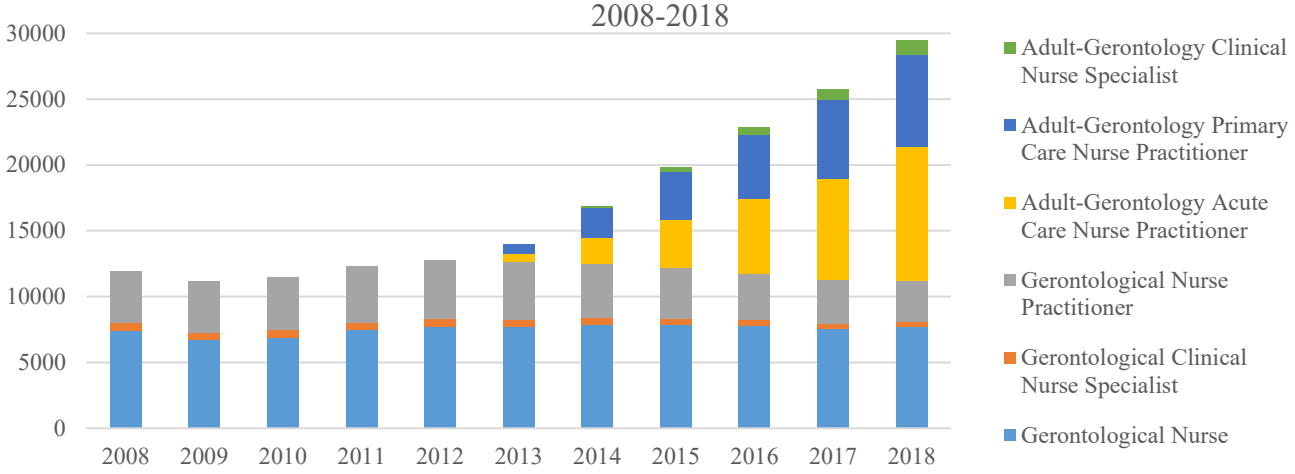


Figure 2. Number of nurses certified in gerontology in the United States from 2008-2018



In the U.S., The John A. Hartford Foundation and the Institute for Health Improvement in partnership with the American Hospital Association and the Catholic Healthcare Association of the United States, has identified the need to create new approaches to provide safe and highly effective care of older adults (Institute for Healthcare Improvement (IHI), 2019a; Mate et al., 2018). The aim of their Age-Friendly Health Systems initiative is to reach 20% of U.S. hospitals and primary care practices by December 31, 2020 (IHI, 2019a).

Age-Friendly Health Systems are defined as health systems where older people get the best care possible, with a reduction in health care-related harms, higher satisfaction with care, and optimized value.

> *[This system] would keep older adults healthy, be proactive in addressing potential health needs, prevent avoidable harms, improve care of those with serious illness and at the end of life, and support family caregivers throughout. We recognize that no single health system, foundation, or organization will accomplish this work of the future; we will need the engagement and support of government, other foundations, our health systems, clinicians and the organizations representing them, social service agencies, and older adults and their families. (Fulmer, Mate, & Berman, 2018, p. 23)*

Age-Friendly Health Systems go beyond primary care and its interactions with the community. It extends to improved geriatrics care in hospitals, emergency departments, and skilled nursing facilities.

Origins of Age-Friendly Health Systems

In recognition of the rising aging population, the World Health Organization (WHO) produced a report titled "Active Ageing: Towards Age-Friendly Primary Health Care" (2004), noting the various barriers older adults face in a health care system that is not age-friendly. Specifically,

> *Transport to the [primary health] centre may be unavailable or too expensive. [Older adults] may have to reach the centre early in the morning only to wait in long lines in uncomfortable settings just to get a number to be seen by the doctor or health care worker. They may encounter difficulty completing the required forms and overburdened staff may get impatient with them. After waiting for hours, they may get only a few minutes with a health care provider who does not have time to listen to all their concerns, misses critical warning signs, and does not have the geriatric-related training to make the right diagnosis or prescribe the right treatment. They may not be able to afford the medicines prescribed or may not understand why to take them or what side effects to report. Older [adults] may become discouraged from seeking or continuing treatment with potentially serious health consequences. (ibid, page v)*

To address these concerns and meet the potential needs of older adults seeking health treatment, the WHO has identified three components of its "age-friendly" primary health care project (ibid, 2004):

- Using education to improve attitudes and knowledge so that the primary health care provider can recognize the specific needs of the older persons, for example, geriatric syndromes;
- Adapting the health system to the requirements of the older person; and
- Improving physical access for the hearing or visually impaired and those with mobility problems.

The John A. Hartford Foundation and the Institute for Healthcare Improvement build upon the work of the WHO to create Age-Friendly Health Systems. Age-Friendly Health Systems are those in which every older adult gets the best care possible, experiences no health care-related harms, and is satisfied with the health care they receive. The framework guiding this initiative is the 4Ms Framework: what matters, medication, mobility, and mentation (IHI, 2019b; **Figure 3**):

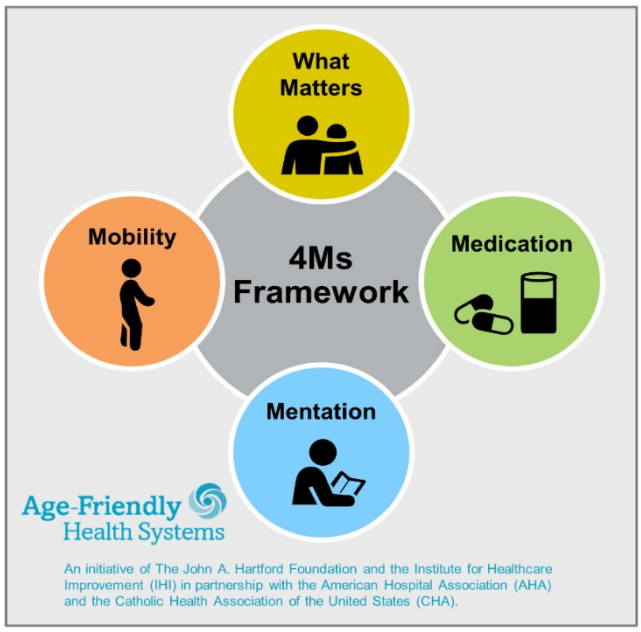


Figure 3. The 4Ms Framework (IHI.org, 2019b)

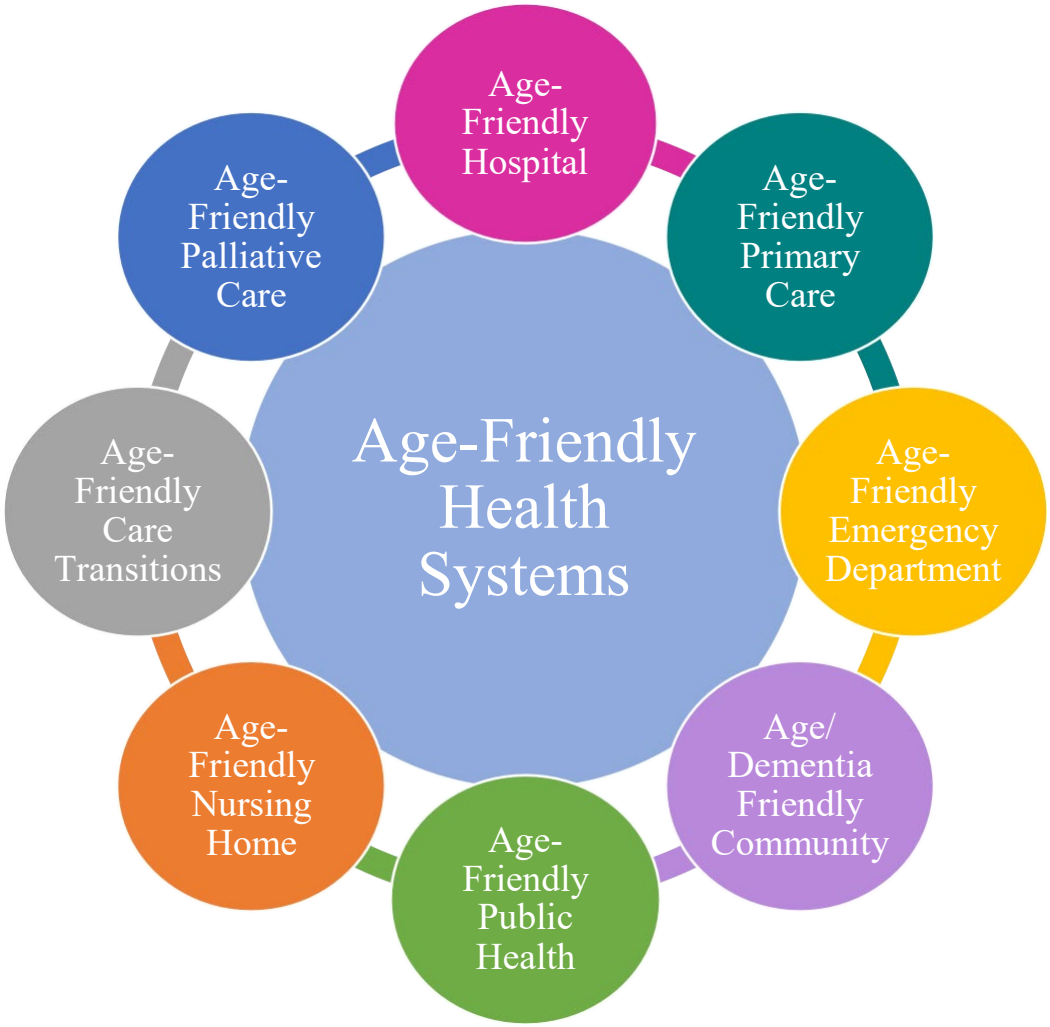
- **What Matters:** Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care and across settings of care.
- **Medication:** If medication is necessary, use Age-Friendly medications that do not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.
- **Mentation:** Prevent, identify, treat, and manage dementia, depression, and delirium across care settings.
- **Mobility:** Ensure that older adults move safely every day in order to maintain function and do What Matters.

Models that Advance Age-Friendly Health Systems

Geriatrics models, within the context of Age-Friendly Health Systems, guide the care of older adults, prevent functional disability, and preserve quality of life to allow older adults to remain at home, or in the least restrictive setting, as independently as possible for as long as possible. They provide a context for older adults, families, and caregivers to be a partner and participate in shared decision making with health care providers, thus addressing "what matters" the most to the individual. When developing age-friendly programs, it is important to involve the older adult and family in the decision-making process, focusing on both medical and psychosocial factors. Successful models are value-based and improve access to and continuity of health care, improve the patient's experience of care, and improve the quality of care while decreasing costs. Below

are examples of geriatrics models that can be used to help health care systems become more age-friendly. **Figure 4** (below) provides a list of components and related elements often found within Age-Friendly Health Systems.

Figure 4. Age-Friendly Health Systems Components and Related Elements



Age Friendly Health Systems Component	Elements within each component
Age Friendly Hospital	• Acute Care for the Elderly (ACE) unit • Delirium Intensive Care Unit • Exercise (Mobilization) Programs • Orthogeriatric Programs • Geriatric Consult Service • Geropsychiatry Service • Polypharmacy Screening • Restraint Free • Falls Prevention Programs

Age Friendly Primary Care	• Geriatric Screening, e.g. Rapid Geriatric Assessment (RGA) • Physical Therapy and Long-Term Exercises • Cognitive Stimulation Therapy • Circle of Friends • Care of Persons with Dementia in Their Environments • Annual Medicare Wellness Visit • Transportation • Hospital at Home • Home Visits • Caregiver Stress Screening and Support Program
Age Friendly Emergency Department	• Geriatric Screening, e.g. RGA • Age-Friendly Environment • Aging-Specific Trained Staff • Aging Discharge Protocols • Geriatric Quality Improvement Programs
Age/Dementia Friendly Community	• Dementia Awareness • Aging Friendly Pathways, Street Lights and Access • Low Atmospheric Pollution • Primary Prevention Programs (Exercise, Nutrition, Mental Stimulation) • Age-Friendly Cafes and Stores • Community Screening for Aging Syndromes • Telehomecare • Palliative (End of Life) Programs • Home Adaptation Programs • Elder Specific Technology
Age Friendly Public Health	• Connected sectors and professions that provide supports, services, and infrastructure to increase healthy aging • Coordinated supports and services that reduce duplication of efforts and increase accessibility • Community needs assessments and shared best practices for healthy aging • Integrated clinical and population health approach to complement and supplement existing supports and services
Age Friendly Nursing Home	• Geriatric Evaluation and Management Units • Restraint Free • Meaningful Activities • Exercise Programs • INTERACT Program • Alzheimer Villages • Cognitive Stimulation Therapy • Circle of Friends
Age Friendly Care Transitions	• Early Discharge Planning • Communication Between Sites • Home Visits/Provider Office Visits • Medication Management • Telehealth, Telemedicine, Telepsychiatry
Age Friendly Palliative Care	• Create Advance Directives Early • Shared Decision Making • In-Hospital and Out-Patient Palliative Care Teams • Hospice Care

Age-Friendly and Dementia-Friendly Communities

Age-Friendly Health Systems start with age-friendly and dementia-friendly communities. Age-friendly communities play an important role in helping their residents stay healthy, live longer active lives, and age in place. Creating age-friendly environments requires action in many sectors including "the built environment," including technology that permits persons to remain safety in their home or community, "transport[ation], housing, social participation, respect and social inclusion, civic participation and employment, communication, and community support and health services (World Health Organization, 2019), including long-term care. Workforce development across these sectors is essential to helping older adults remain in their homes and communities.

Dementia-friendly communities promote community-wide dementia awareness; information, resources, and support for family and friend caregivers; meaningful community participation by all residents; and inclusion of diverse communities (ACT on Alzheimer's, 2019). An example of this is illustrated in **Figure 5** below. Training persons in the community to recognize and assist persons with dementia, enhancing the physical environment, and promoting dementia-friendly shops, restaurants, and transportation are all part of creating a dementia friendly community.

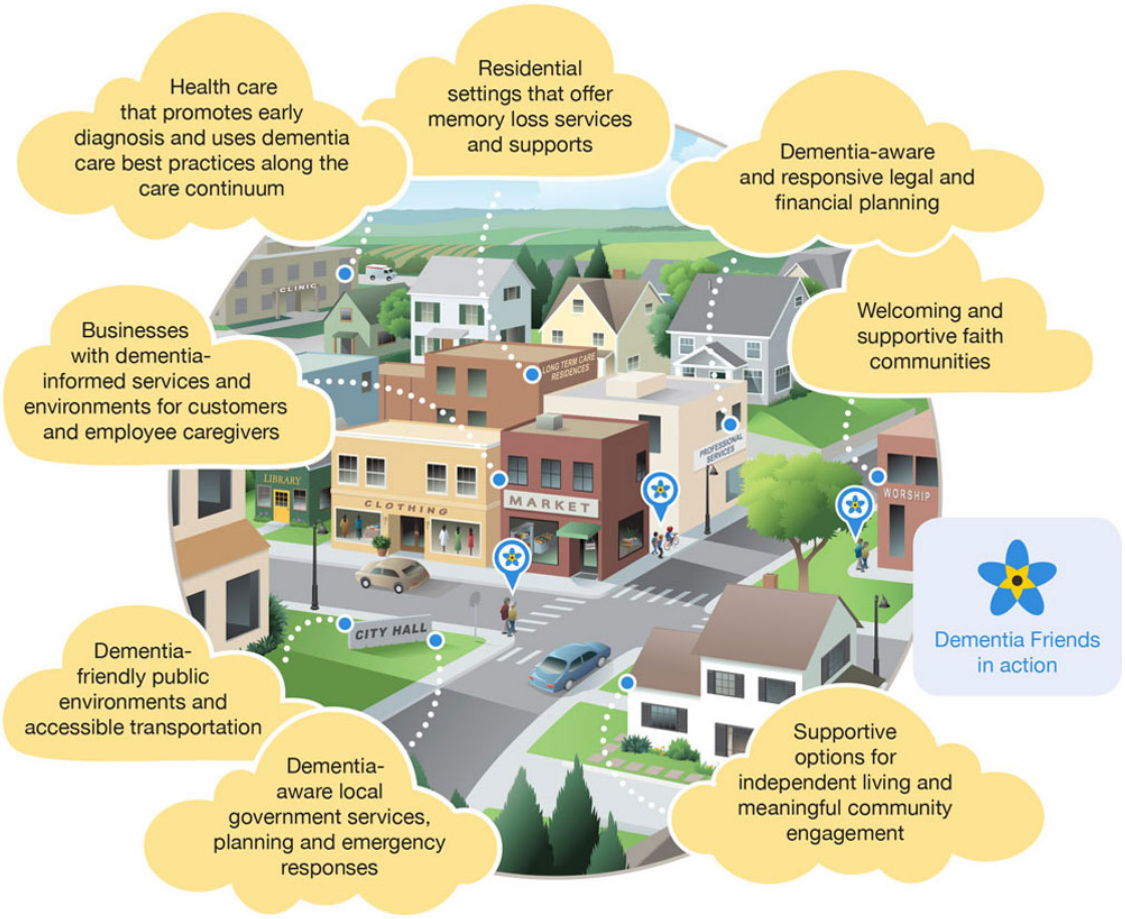


Figure 5. Example of a dementia-friendly community (ACT on Alzheimer's, 2019). Reproduced from ACT on Alzheimers® developed tools and resources.

Rapid Geriatric Assessment (RGA)

The Saint Louis University Geriatrics Workforce Enhancement Program (GWEP) emphasizes the recognition and treatment of geriatric syndromes. To do this, they use the Rapid Geriatric Assessment (RGA) and its associated algorithms (Morley, 2017). The RGA is a screening that consists of the FRAIL Questionnaire Screening Tools to evaluate frailty; the SARC-F Tool to assess sarcopenia, including falls; the Simplified Nutritional Assessment Questionnaire (SNAQ) to evaluate nutritional status; the Rapid Cognitive Screen to assess cognitive status; and the question, "Do you have an advance directive?" to assess the status of end-of-life care planning. The associated treatment algorithms used will be determined by the result of the RGA. If the older adult is fatigued, the team should consider a treatment algorithm that includes tools for depression, sleep apnea, hypothyroidism, B_{12} deficiency, anemia, and hypotension. Over 10,000 individuals in Missouri have been successfully screened using the RGA.

Age-Friendly Primary Care

The Saint Louis University GWEP has another example of an age-friendly primary care program in Perry County Memorial Hospital. This program provides annual screening for geriatric syndromes during the Medicare Annual Wellness visit in conjunction with the RGA, physical therapy followed by lifetime exercise groups for persons with falls or sarcopenia, cognitive stimulation therapy for those with moderate dementia (Aguirre, Woods, Spector, & Orrell, 2013; Stewart et al., 2017), a Circle of Friends for persons who are lonely (Pitkala, Routasalo, Kautiainen, Sintonen, &Tilvis, 2011), Care of Persons with Dementia in their Environment (COPE) program (Gitlin, Winter, Dennis, Hodgson, & Hauck, 2010), caregivers' stress screening and support programs (Berg-Weger, Rubio, & Tebb, 2000), and transportation to these programs. Over a third of older adults in Perry County, Missouri have been screened.

Age-Friendly Hospitals

The major components of an age-friendly hospital include being restraint-free with early mobilization, having an active socialization program such as included in the Elder Life Program (Hshieh, Yang, Gartaganis, Yue, & Inouye, 2018), and a falls prevention program. Specific programs that improve quality of care for older persons are Acute Care for the Elderly (ACE) units (Fox et al., 2012), Delirium Intensive Care Units (Flaherty et al, 2003; Chong, Chan, Tay, & Ding, 2014), orthogeriatric programs (Grigoryan, Javedan, & Rudolph, 2014), geriatric and geropsychiatry consult services, and medication reconciliation practices. An important component of Age-Friendly Health Systems is that all the medical "silos" have fluid and functional communication systems between them.

Age-Friendly Emergency Departments

Recently, geriatric emergency department certification has been developed (Geriatric Emergency Department guidelines, 2014), where applicants are required to have aging-specific trained staff, a way of screening for geriatric syndromes, geriatric quality improvement programs, aging discharge protocols and age-friendly physical and social environments.

Age-Friendly Nursing Homes

In nursing homes (long-term care), a similar series of programs can be created to improve the enjoyment and quality of life of older adult residents. In addition, Alzheimer Villages (Samuel, 2018), the EDEN alternative (Burgess, 2015), a variety of meaningful activities (Morley, Philpot,

Gill, & Berg-Weger, 2014), variants of the INTERACT (Interventions to Reduce Acute Care Transfers) program to reduce hospitalizations (Rantz et al., 2017; Van Craen et al., 2010), and robotic companions (Darragh et al., 2017) are examples of age-friendly programs.

Age-Friendly Disaster Planning

The limitations older adults face in mobility or mentation could have a detrimental impact on survivability during emergencies and disasters (Lemyre et al. 2009). Having an age-friendly community will better address the special needs of these older adults and their caregivers, yield a positive impact in prolonging life, and in doing so, decrease burden on the health care system. For example, educating public health personnel, emergency responders, and aging services professionals of the specific needs of older adults, and identifying where older adults reside using community mapping data, can potentially reduce the number of older adult casualties during an emergency, identify those left without medications, provisions, and electricity, and provide a way for older individuals with limited mobility to move out of dangerous situations (Aldrich & Benson, 2008).

Age-Friendly Home and Community-Based Care

The Indiana University Center for Aging Research (2019) has developed the Geriatric Resources for Assessment and Care of Elders (GRACE) to enhance care of older adults. The GRACE team is proficient in administering protocol assessment tools and developing care plans. This program begins with a home visit to an older adult by an advanced practice nurse and a social worker. The needs of the older adult are discussed with a larger interprofessional team to create a care plan. This personalized care plan is communicated to the older adult and, where appropriate, their family members. The older adult is then contacted monthly by cell phone. Organizations using the GRACE Team Care model have reduced emergency department visits, hospital admissions, 30-day readmission rates, and admissions to skilled nursing facilities.

The need for Age-Friendly approaches to health care has been identified and various frameworks proposed even outside the United States, such as in Taiwan and Iran (Chiou & Chen, 2009; Ahmadi, Seyedin, & Fadaye-Vatan, 2015). Solutions include empowering older adults and their families to increase control over their health care through community partnerships and educating professionals in geriatric care.

Evidence-based Outcomes of Age-Friendly Health Systems

In developing the Age-Friendly Health Systems framework, a team from the Institute for Healthcare Improvement (IHI) sought to identify the core features of 17 evidence-based models and programs serving older adults, including a focus on what outcomes were achieved. This review identified 90 “discrete core features,” which were further distilled into 13 core features. Finally, a meeting of experts selected the “vital few” elements, known as the 4Ms: What Matters, Medication, Mentation, and Mobility.

The 4Ms is not a program of discreet elements. Rather, it is important to approach the 4Ms as a suite of practices to be implemented together and as a shift in the approach to care for older adults. A solid evidence-base undergirds the importance of the 4Ms, as noted in **Table 2** (Berman & Mate, 2018). In evaluating the evidence-based outcomes from creating Age-Friendly

Health Systems, it quickly becomes apparent that there is an interrelationship and overlap between core elements (IHI, 2019c).

Table 2. The evidence-base for 4M outcomes.

4Ms	Evidence based outcomes
What Matters	• Asking what matters and developing an integrated system to address it lowers inpatient utilization (54% decrease); ICU stays (80% decrease), while increasing hospice use (47.2%) and patient satisfaction (AHRQ, 2013)
Medications	• Older adults suffering an adverse drug event have higher rates of morbidity, hospital admission and costs (Fields, 2005) • 1,500 hospitals in HEN 2.0 reduced 12,611 adverse drug events saving $78 million across 34 states (HRET, 2017)
Mentation	• Depression in ambulatory care doubles the cost of care across the board (Unutzer, 2009) • 16:1 Return on Investment (ROI) on delirium detection and treatment programs (Rubin, 2013)
Mobility	• Older adults who sustain a serious fall-related injury required an additional $13,316 in hospital operating cost and had an increased length-of-stay (LOS) of 6.3 days compared to controls (Wong, 2011) • 30+% reduction in direct, indirect, and total hospital costs among patients who receive care to improve mobility (Klein, 2015)

(Berman & Mate, 2018)

What Matters

Central to the 4Ms is aligning care with "What Matters" to the older adult, and using information elicited from each individual to guide care preferences and health outcome goals. Care preferences and goals relate to the values and activities that give meaning and quality to the daily lives of each older adult. Understanding how recommended treatments, procedures, and medications may support or hinder the individual's participation in activities fundamental to who they are is essential to guide decisions about overall care, as well as care at the end-of-life and across settings of care. The goal for the interprofessional care team is to "ensure that every older adult's health outcome goals and care preferences are understood, documented, and integrated into their care by the entire health care team" (IHI, 2019d, p. 5).

Medications

Polypharmacy and inappropriate medication use can increase the likelihood of experiencing adverse effects for older adults with comorbid chronic diseases (Garfinkel & Mangin, 2010) and is a statistically significant predictor of hospitalization, nursing home placement, and impaired mobility (Frazier, 2005). Simple improvements in communication between practitioner and patient via good palliative-geriatric practice has been shown to successfully decrease medication burden on older adults and improve health (Garfinkel & Mangin, 2010). As such, age-friendly initiatives to manage medications, reduce polypharmacy, and deprescribe where appropriate

could reduce the burden on the health care system by decreasing frequency of hospitalizations and nursing home placement.

Mentation

As people age, one in four older adults will experience a mental health problem, some with an increase in suicide risk, and others with co-occurring substance use problems (Novotney, 2018). Building Age-Friendly Health Systems can support the goals of healthy aging by encouraging physical activity and preventing social isolation (Lehning, and DeBiasi, 2018). For instance, physical activity has been found to reduce risks associated with the prevalence and incidence of depression in older adults (Strawbridge, Deleger, Roberts, and Kaplan, 2002). This is especially helpful given that depression can be comorbid with other illnesses experienced by many older adults, such as cardiovascular disease, diabetes, dementia, anxiety disorder, and insomnia (Fiske, Wetherell, and Gatz, 2009). Also, interprofessional geriatric evaluations are crucial to arriving at a differential diagnosis between depression, dementia, and delirium, which can have similar presentations, and to determine its origins (e.g., medications, medical conditions, etc.).

Two initiatives in Indiana have shown how adopting an Age-Friendly Health Systems approach can improve health outcomes for people living with dementia at a lower cost (Callahan et al., 2014). Specifically, creating a population-based electronic health record system and transforming the intervention to focus on care in patients' homes reduced the rates of emergency department use and rehospitalizations. Similarly, focusing on proactive care allowed clinicians to quickly change treatment plans for patients according to their individual needs, thereby improving transition management by leveraging expertise from multiple stakeholder groups.

Mobility

Older adults have been defined to be a "high risk" vulnerable population due to their increased frailty and limitations in mobility and mentation (Lemyre, Gibson, Zlepnig, Meyer-Macleod, and Boutette, 2009). Increased frailty may indicate an "increased risk for future poor clinical outcomes, such as development of disabilities, dementia, falls, hospitalizations, institutionalization, or…mortality" (van Kan et al, 2010). Falls prevention programs within an age-friendly community could ideally prevent or reduce the risk of injury of these individuals, while exercise training programs could help strengthen physical function in some older adults, and thereby improve health outcomes (Paw, van Uffelen, Riphagen & van, 2008).

Meaningful Measures

The Centers for Medicare and Medicaid Services (CMS) have developed outcome-based Meaningful Measures that can be aligned with the 4Ms in support of Age-Friendly Health Systems. This approach "streamline[s] the measures hospitals and physician practices must report on, focusing only on those most essential to care quality and improved outcomes" (Miliard, 2017). This initiative leverages valid and reliable single measures available from multiple sources into a comprehensive process that has a high potential to impact people living with cognitive symptoms and the quality of care that they receive (Epstein-Lubow, 2018). A description on how creating Age-Friendly Health Systems may impact the larger community in the United States and meet CMS quality outcomes can be viewed in **Appendix A**.

Educational Accreditation for Training in Age-Friendly Care

Overall, the education of a diverse interprofessional integrated health/behavioral health workforce prepared to advance healthy aging, address social determinants of health, and recognize and care for older adults with aging syndromes is critical to increasing awareness of the opportunities to create Age-Friendly Health Systems and a key component to improving the quality of life for older persons.

To develop a workforce competent to provide age-friendly health care, it is important to incorporate principles of Age-Friendly Health Systems and the 4Ms into the curricula of health professions schools. It is also important to emphasize interprofessional training and care, since the care of the older adult and the needs of their family caregivers can be complex and dependent on health professionals who work together as high-functioning, interprofessional, collaborative teams.

While twenty-five health professions accreditors recently conducted a voluntary harmonization of accreditation standards related to interprofessional practice and education (IPE) (Health Professions Accreditors Collaborative, 2019), current accreditation standards do not adequately address age-friendly concepts and the 4Ms. **Table 3** below provides a review of current accreditation standards of health professions schools and programs.

Table 3. Review of age-friendly competencies addressed by current accreditation standards of health professions schools and programs

Health profession	Description	Comment on age friendly competencies
Audiology and Speech Therapy	The Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) requires a curriculum in interprofessional team care.	Curriculum should include patients of all ages [a]
Chiropractic	The Council on Chiropractic Education [b] Meta-Competencies explicitly state that chiropractic students have the knowledge, skills, and values necessary to function as part of an inter-professional team to provide patient-centered collaborative care, maintaining a climate of mutual respect and shared values, placing the interests of patients at the center of interprofessional health care delivery.	These and other Meta-Competencies infer the need for age-appropriate assessment, diagnosis, and care since all accredited chiropractic colleges include specific training in geriatrics in their core curricula.

Dentistry	The Commission on Accreditation in Dentistry (CODA)[c] states dental graduates must be competent in assessing the treatment needs of patients with special needs. These individuals include complex medical problems, significant physical limitations, and the vulnerable elderly.	CODA requires dental students to receive clinical instruction and experience with special needs patients and instruction in proper communication techniques to assess treatment needs. Nevertheless, interaction with elderly patients is limited.
Graduate Medical Education	Training standards to prepare residents and fellows for practicing medicine are established by various medical specialties' residency review committees (RRCs) of the Accreditation Council for Graduate Medical Education.	While most physician visits by older adults are with non-primary care specialists, as of 2003, only 27 of the 91 RRC-accredited specialties had specific geriatrics training requirements, and even among these specialties, curriculum expectations were modest.[d]
Medicine	The Liaison Committee on Medical Education (LCME) accreditation standards state that the core curriculum should teach interprofessional collaborative skills to prepare medical students to work on health care teams that provide coordinated services.	There is little mention about older patients, other than stating that the curriculum should include patients with a mix of ages.[e]
Nursing	The Commission on Collegiate Nursing Education (CCNE) requires that curriculum include interprofessional care.	CCNE does not specifically mention curriculum on aging.[f] CCNE identifies Interprofessional education, population health, and care of an increasingly aged population as essential elements of the education of professional nurses. The term "age friendly" and the 4Ms are not included in these standards, as this newer language or framework for care of older adults has not been widely understood.
Occupational Therapy	The Accreditation Council for Occupational Therapy Education (ACOTE) requires schools to have curriculum in interprofessional team care.	ACOTE states that students should receive training across the lifespan, including older patients.[g]

Pharmacy	The Accreditation Council for Pharmacy Education (ACPE) states that curriculum must include training on interprofessional education and practice.	ACPE does not mention older patients other than stating there should be diversity of ages in the patient population.[h]
Physical Therapy	The Commission on Accreditation in Physical Therapy Education (CAPTE) requires curriculum in interprofessional team care.	This is the only health profession where the curricular requirements mentioned two of 4Ms with relation to aging – Mentation and Mobility.[i]
Physician Assistant	The Accreditation Review Commission on Education for the Physician Assistant, Inc. (ARC-PA) requires curriculum in interprofessional care, and the curriculum should include training in patients across the life span including the elderly.	There is no mention of Age-Friendly Health Systems or the 4Ms.[j]
Psychology	The Office of Program Consultation and Accreditation for the American Psychological Association has identified consultation and interprofessional/interdisciplinary skills as a Profession Wide Competency. As such, all trainees in accredited educational programs in psychology must demonstrate knowledge and respect for the roles and perspectives of other professions as well as knowledge of consultation models and practices.	Mentions the need for curriculum to cover all developmental periods, including late life.[k]
Public Health	The Council on Education for Public Health (CEPH) does require training on working in interprofessional teams.	CEPH does not specifically mention older populations other than stating that students should be trained to work with diverse populations.[l]

Social Work	The Council on Social Work Education (CSWE) requires training students to work in interprofessional teams.	CSWE only mentions that the curriculum should include diverse populations, which includes age as one of the factors.[m]

[a]Council on Academic Accreditation (2017); [b]The Council on Chiropractic Education (2018); [c]Commission on Dental Accreditation (2020); [d]Bragg and Warshaw (2005); [e]Liaison Committee on Medical Education (2019, March); [f]Commission on Collegiate Nursing Education (2018, August 27); [g]2018 Accreditation council for occupational therapy education standards and interpretive guide (n.d.); [h]Accreditation Council for Pharmacy Education (2015); [i]Standards and required elements for accreditation of physical therapist education programs (2017); [j]Accreditation Review Commission on Education for the Physician Assistant (2018); [k]American Psychological Association (n.d.); [l]Council of Education for Public Health (2016); [m]Council of Social Work Education (2015).

In summary, while the accreditation requirements of all health professions schools and programs include development of curricula in interprofessional team care, none of them include educating to practice in Age-Friendly Health Systems or the 4Ms. This is not surprising, since the concept of Age-Friendly Health Systems is relatively new.

Competencies for Interprofessional Practice in Age-Friendly Health Systems

Citing recommendations from *Health Professions Education: A Bridge to Quality* (IOM, m2003) and *Retooling for an Aging America: Building the Health Care Workforce* (IOM, 2008), a 2009 report by the ACICBL developed five recommendations to prepare the health care workforce to practice interprofessionally. The process involved convening a summit of major accrediting bodies "to guide interprofessional curricula development…promote concurrence in accreditation requirements across professions" and "create a shared set of core interprofessional competencies" (ACICBL, 2009, p. 9).

- In 2011, the Interprofessional Education Collaborative (IPEC) developed four core competencies for interprofessional collaborative practice, revised in 2016, including values and ethics, roles and responsibilities, interprofessional communication, and teams and teamwork.
- In 2014, the Health Professions Accreditors Collaborative (HPAC) officially began with six founding professions: medicine (via LCME), nursing (via CCNE), pharmacy (via ACPE), dentistry (via CODA), public health (via CEPH), and osteopathic medicine (via COCA).
- In 2019, 25 HPAC health professions accrediting bodies developed a voluntary consensus guidance for IPE standards, facilitating a more systematic approach to development, implementation, and evaluation of IPE initiatives (HPAC, 2019).

The time has now come for a similar evolution related to health care for older adults, developing and harmonizing core competencies for interprofessional practice in Age-Friendly Health Systems. ACICBL recommends that HRSA, in collaboration with health professional organizations, academia, and other federal agencies, develop competencies to advance interprofessional practice in Age-Friendly Health Systems. As it did with IPE, the process begins by developing and seeking interprofessional agreement on core competencies, then developing and harmonizing related accreditation standards.

As a beginning step, the American Geriatrics Society (AGS) developed a comprehensive list of health care disciplines with "formalized geriatrics competencies approved by at least one national organization," noted below **(Table 3)**, with certification variation by discipline (Core competencies, n.d.). Each accreditor takes a discipline-specific approach to geriatric competencies, partially reflecting the 4Ms Framework (What Matters, Medications, Mentation, and Mobility).

Table 3. Defining sources of healthcare professions delineated by specialty.

Professional Competencies	Specialty	Defining source
For physicians	Medical Students (MDs and DOs)[a]	• Association of American Medical Colleges • John A. Hartford Foundation
	Geriatric Medicine Fellows[b,c]	• Journal of the American Geriatrics Society

Professional Competencies	Specialty	Defining Source
For physicians	Emergency Medicine[d-f]	• American College of Emergency Physicians
	Internal Medicine & Family Medicine[g,h]	• Accreditation Council for Graduate Medical Education • American Board of Internal Medicine • Society of General Internal Medicine
	Psychiatry[i,j]	• American Association for Geriatric Psychiatry
	Surgery[k]	• Journal of the American College of Surgeons
For interprofessional health care providers	Gerontologists[l]	• Association for Gerontology in Higher Education
	Nurses[m]	• American Association of Colleges of Nursing
	Occupational Therapists[n]	• American Occupational Therapy Association
	Personal Care Workers[o]	• Paraprofessional Healthcare Institute (PHI)
	Home Health Aides[p]	• Paraprofessional Healthcare Institute (PHI)
	Nursing Assistants[q]	• Paraprofessional Healthcare Institute (PHI)
	Pharmacists[r]	• American Society of Consultant Pharmacists
	Physical Therapists[s-u]	• Academy of Geriatric Physical Therapy • American Physical Therapy Association
	Psychologists[v,w]	• American Psychological Association; American Psychologist
	Social Workers[x,y]	• Council on Social Work Education; Social Work Leadership Institute, CSWE

[a]Minimum geriatric competencies for medical students (2010); [b]Leipzig et al. (2014); [c]Parks, Harper, Fernandez, Sauvigne, & Leipzig (2014); [d]Minimum geriatric competencies for emergency medicine residents (2009); [e]American College of Emergency Physicians (n.d.); [f]Hogan et al. (2010); [g]Accreditation Council for Graduate Medical Education and the American Board of Internal Medicine (2014); [h]Minimum geriatric competencies for IM-FM residents (n.d.); [i]Geriatric core competencies (n.d.); [j]Proposed geriatric psychiatry core competencies (n.d.); [k]Bell, Drach, & Rosenthal (2011); [l]Gerontology competencies for undergraduate and graduate education (n.d.); [m]Advanced practice adult-gerontology and baccalaureate competencies (2010); [n]Certification requirements: Board certification overview (2013); [o]PHI (2018a); [p]PHI (2018b); [q]PHI (2018c); [r]American Society of Consultant Pharmacists (n.d.); [s]Essential competencies in the care of older adults at the completion of a physical therapist postprofessional program of study (n.d.); [t]Essential competencies in the care of older adults at the completion of the entry-level physical therapist professional program of study (n.d.); [u]Essential competencies in the care of older adults at the completion of the entry-level physical therapist assistant program of study (n.d.); [v]Competency initiatives in professional psychology (n.d.); [w]Karel, Knight, Duffy, Hinrichsen, & Zeiss (2010); [x]History of the development of gerontological social work competencies (2019); [y]Geriatric social work competencies scale II (n.d.)

In June 2008, the American Geriatrics Society convened the Partnership for Health in Aging, made up of 21 organizations representing health care professionals to advance recommendations from *Retooling for an Aging America: Building the Health Care Workforce*. In February 2009, ten health care disciplines experienced in competency development, certification, and accreditation (dentistry, medicine, nursing, nutrition, occupational therapy, pharmacy, physical therapy, physician assistants, psychology, and social work) convened to develop "Multidisciplinary Competencies in the Care of Older Adults at the completion of the entry-level health professional degree," ultimately endorsed by 30 national organizations. The six domains included 1) Health Promotion and Safety, 2) Evaluation and Assessment, 3) Care Planning and Coordination Across the Care Spectrum (Including End-of-Life Care), 4) Interdisciplinary Team Care, 5) Caregiver Support, and 6) Health Care Systems and Benefits (Partnership for Health in Aging, 2009). These domains and sub-competencies provide a baseline of geriatric training and identify variations in language and terminology across the disciplines. It is possible to identify components of the 4Ms within these competencies (**Appendix B**).

In 2011, the Partnership for Health in Aging published a position statement advocating for interdisciplinary team training in geriatrics as an essential component of quality health care for older adults. Recommendations were based on the Geriatric Interdisciplinary Team Training Program (GITT; Fulmer, Flaherty & Hyer, 2004), but the language reflected three out of four of the IPEC core competencies (i.e., roles and responsibilities, communication, team "functioning"). In 2014, the Academy for Gerontology in Higher Education (AGHE) adopted Gerontology Competencies for Undergraduate and Graduate Education using three categories (Category 1: foundational; Category II: interactional; and Category III: select and tailored based on program mission, goals, and orientations). A related tool was developed to facilitate "Mapping Course Content onto AGHE Gerontology Competencies" (n.d.). The Council on Social Work Education developed a competency-based *Specialized Practice Curricular Guide for Gero Social Work Practice* related to their 2015 accreditation standards (CSWE, 2017). Competency dimensions included knowledge, values, skills, and cognitive and affective processes.

With the progress that has been made to date, modeled after the successful example of IPE, HRSA in collaboration with health professional organizations, academia, other federal agencies, and age-friendly initiative supporters can seek to develop competencies to advance interprofessional practice in Age-Friendly Health Systems. Guidance can be provided by Age-Friendly Health Systems champions including The John A. Hartford Foundation and the Institute for Healthcare Improvement (IHI) in collaboration with the American Hospital Association (AHA), and the Catholic Health Association of the United States (CHA). Additional support can be provided by the American Geriatrics Society and the Academy for Gerontology in Higher Education (AGHE), recently re-positioned as the Gerontological Society of America's (GSA) educational organization (AGHE, 2018).

Health Care Provider Wellness

Age-Friendly Health Systems depend on interprofessional teams to provide comprehensive care for the complex health needs of older adults. However, it is well documented that burnout is a growing problem and the wellness and resilience of health care workers has come increasingly into focus. Thus, health care systems need to also address provider wellness and resilience.

Initially, the "Triple Aim" in health care included three goals: a) enhancing the patient experience of care, b) improving the health of populations, and c) reducing the per capita cost of health care. Introduced in 2007 by the Institute for Healthcare Improvement, the Triple Aim concept was designed to optimize overall health system performance for individual patients and the overall population. Since the introduction of the Triple Aim, however, there has been a growing concern that the quality of the health care system is intrinsically related to the overall well-being of its health care providers (Bodenheimer and Sinsky, 2014). Hence, the concept of a "Quadruple Aim" has been introduced that focuses upon, "improving the work life of health care providers, clinicians and staff," also known as Provider Well-Being (Perlo et al, 2017).

Health care providers may experience burnout when they feel stressed, emotionally exhausted, or depersonalized due to work. A health care workforce experiencing burnout can have profound effects on delivery of care, loss of productivity, increased turnover rates, decreased access to quality health care, and increased costs to practices, insurers and, ultimately, to consumers (Blue Ridge Academic Health Group, 2017-2018). Turnover also negatively impacts continuity of care.

The Challenge for the Health Care Delivery System

Quality of Care

When health care providers are feeling the effects of burnout, the quality of care they provide to patients can be impacted. In an initial study of physician burnout, primary symptoms of emotional exhaustion, depersonalization (or negative feelings toward patients and clients), and loss of personal accomplishment (or feelings of competence) were found to be primary contributors to burnout. Consequences of burnout included lower quality of care, insomnia, drug and alcohol abuse, absenteeism, marital and family difficulties, and job turnover (Freudenberger and Maslack, 1981). Later studies by Shanafelt and colleagues (2010) indicated that increased scores in emotional exhaustion and feelings of depersonalization also led to increases in reported medical errors. The Blue Bridge Academic Health Group (2017-2018) estimates that medical errors due to burnout amounts to $97 billion to $129 billion dollars annually.

Prevalence of Burnout in Health Professionals

Large scale studies of physicians conducted in 2011 and 2014 indicated that 45.5% and 54.4%, respectively, of physicians reported experiencing at least one symptom of burnout (Shanafelt, et al, 2011; 2014). These rates are significantly higher than those experienced in the general workforce. One major consequence of burnout amongst practicing physicians is a suicide risk that is higher than the population at large (1.41 times as frequent for male physicians and 2.27 times as prevalent for female physicians (Shernhammer and Colditz, 2004).

Economic Impacts on Health Care

Loss of providers to the health care field can have devastating effects on overall costs of care. Some of the unintended consequences of the Triple Aim concept have led to increases in the numbers of professionals leaving the field. The Electronic Health Record (EHR), by way of example, was intended to improve contacts with patients, physician order entries, alerts and reminders, all associated with the Triple Aim. Implementation of the EHR, however, is associated with more burnout and intent to leave medical practice (Bodenheimer and Sinsky, 2014). Estimates are that turnover for one physician can cost as much as $500,000 to $1 million and replacement of a single nurse is estimated at $60,000; projected across the entire health care field, turnover is estimated to cost approximately $150 billion per year (or 4.7% of total health care expenditures).

Causes of Burnout/Lack of Wellness

Organizational Factors

By far, the most commonly cited cause of burnout in health care providers is the changing landscape of the health care delivery system. The heightened focus on productivity, record keeping, documentation, "in-box management" within the EHR, as well as billing procedures and requirements have significantly added the amount of time spent on clerical tasks for providers and support staff. Clinicians also experience a corresponding reduction in more meaningful face-to-face time with patients. Indeed, observational studies illustrate that health care providers spend nearly two hours on desk and EHR duties for every hour of direct face time with patients (Sinsky et al, 2013; 2017).

The increasing expectations for reporting, data tracking, and care coordination; severity and complexity of patient needs; and flat or decreased reimbursement have all contributed to a sense of perceived loss of professional autonomy, accomplishment, and limited time for family and self-care. Taken together, the increased demands on the entire team of providers and support staff, exacerbated by poorly designed workflows, unrealistic expectations, reduced schedule flexibility, and societal stigmas against provider vulnerability, constitute systemic agents for burnout and diminished professional quality of life for health care professionals.

Individual factors

The lack of attention to individual self-care, limited use of adaptive coping skills, and difficulties maintaining work-life balance can also be associated with burnout among health care professionals. Providers can experience a growing sense of dissatisfaction, depersonalization, and exhaustion that can result in burnout when they 1) do not make time for families and intimate relationships, 2) maintain adequate sleep, 3) eat a balanced diet, 4) engage hobbies, and 5) exercise (Shanafelt et al, 2012; 2015).

Addressing Burnout

Effective Approaches to Addressing Burnout and Building Resiliency in the Health Care Workforce

Several strategies, such as education about burnout and promotion of health care provider well-being, have been implemented with positive outcomes. Findings from these programs suggest that interventions to address risk of burnout need to occur at the individual and organizational level as early as possible during education and training to mitigate the impact of stressors on the workforce. Inculcating the value of health enhancing behaviors such as a nutritious diet, adequate sleep, and exercise, and incorporating adaptive coping skills including self-awareness, mindfulness, and cognitive behavioral techniques into the learning curriculum can help build resilience and reduce risk of burnout (West et al, 2016).

Training to help students and early career professionals connect with meaning, purpose, and joy in work (Perlo et al., 2017), recognize signs of burnout, and seek appropriate support will be important in improving the long-term retention and quality of the health care workforce. Effective programs target changes at the individual, organization, and cultural level, and include (Swenson and Shanafelt, 2017):

1) emphasis on maintaining healthy work-life balance;
2) promoting the value of peer-to-peer interactions and connections;
3) support to reduce stigma often associated with professionals seeking help for stress or other kinds of psychological issues;
4) education on team-based care; and
5) training in efficient digital health documentation.

Inclusion of training in quality and performance improvement models, team competencies, and other systems issues can also support enhanced professional quality of life across the health professions. In summary, an essential strategy to address the problem of burnout is to embed the knowledge, skills, and experiences for self-care and wellness at every level of workforce development.

Summary

In 2008, the Institute of Medicine (IOM) report, *Retooling for an Aging America: Building the Health Care Workforce*, described the importance of taking steps to improve health care for a growing demographic of older adults, noting that the first baby boomer would turn 65 in 2011. It is now 2019, and ten thousand Baby Boomers are reaching retirement age every day. By 2030, all Boomers plus a fifth of the U. S. population will have turned 65 (AARP, 2018, March 14).

The IOM report "envision[ed] a future health care system in which the health needs of the older population are addressed comprehensively, services are provided efficiently…[and] older patients are encouraged to be active partners in their own care" (IOM, 2008, p. *xi*). Their focus was health care worker competencies, workforce recruitment and retention, and flexible models of care that expanded the roles of patients and providers. In 2019, we are re-envisioning health care, but this time we are taking a systems approach to transform its very topography.

Tectonic shifts are already in process moving the U.S. health system from "sick care" to health care (Marvasti & Stafford, 2012; Solomon, 2018), health/behavioral health to integrated care incorporating social determinants of health (Kanter, 2018), volume to value, patient to person, and uni-professional providers to interprofessional teams. Major health care systems participating in a national initiative to transform 20% of U.S. hospitals and primary care practices to Age-Friendly Health Systems by 2020 are accelerating this shift, transforming the very landscape of health care. Another wave of Age-Friendly Health Systems Action Communities is currently underway, continuing the expansion of this movement (IHI, 2019).

The ACICBL seeks to maintain this momentum by preparing the current and future health care workforce for interprofessional practice in sustainable, Age-Friendly Health Systems through the following recommendations:

Recommendation 1
ACICBL recommends that HRSA's Title VII, Part D notices of funding opportunities (NOFOs) include language to prepare the current and future workforce, including students, faculty, practitioners, and direct services workers, to transform integrated primary care clinical learning environments/settings into interprofessional Age-Friendly Health Systems.

Recommendation 2
ACICBL recommends that HRSA's Title VII, Part D funding opportunity announcements should encourage recipients to partner with primary care sites/delivery systems to prepare the current and future workforce to deliver population health care within value-based payment models in interprofessional Age-Friendly Health Systems.

Rationale: Funding language and objectives frame the direction of HRSA initiatives at the level of the academic/practice collaborative partnerships. Recommendations 1 and 2 are designed to transform the education and training of health professions students, faculty, practitioners, and direct care workers preparing them to work in Age-Friendly Health Systems and shift their payment models from volume to value.

Recommendation 3
ACICBL recommends that health professions programs integrate age-friendly, interprofessional principles into their curricula to prepare a current and future workforce competent to deliver age-friendly health care.

Rationale: Curricular language and content frames learning objectives and curricular directions for health professions students, informs the understanding of faculty, and impacts continuing education of practitioners and direct service workers. Recommendation 3 is designed to transform curricular expectations within health professions schools and continuing education programs.

Recommendation 4
ACICBL recommends that HRSA, in collaboration with health professional organizations, academia, and other federal agencies, develop competencies to advance interprofessional practice in Age-Friendly Health Systems.

Rationale: Competency-based language and related skills frames learning outcomes, and accreditation and licensure standards. Recommendation 4 is designed to transform learning outcomes for health care professionals to advance interprofessional practice in Age-Friendly Health Systems.

Recommendation 5
ACICBL recommends that HRSA's Title VII, Part D notices of funding opportunities (NOFOs) include language to train health professions students, faculty, and practitioners in the use of outcome-based meaningful measures aligned with the Age-Friendly Health Systems 4Ms Framework: what matters, medication, mobility, and mentation.

Rationale: CMS adopted the Meaningful Measures approach to "streamline the measures hospitals and physician practices must report on, focusing only on those most essential to care quality and improved outcomes" (Miliard, 2017). Program evaluation is integral to ensure effectiveness of programs and maintain their sustainability. Recommendation 5 is designed to reduce provider and practitioner burden and inform quality improvement in promoting interprofessional practice in Age-Friendly Health Systems.

Recommendation 6
ACICBL recommends that HRSA work across divisions and programs to include specific language in their notices of funding opportunities (NOFOs) to develop evidence-based practice models that prevent burnout and foster individual/team wellbeing, resilience, and retention to advance the Quadruple Aim in interprofessional collaborative practice.

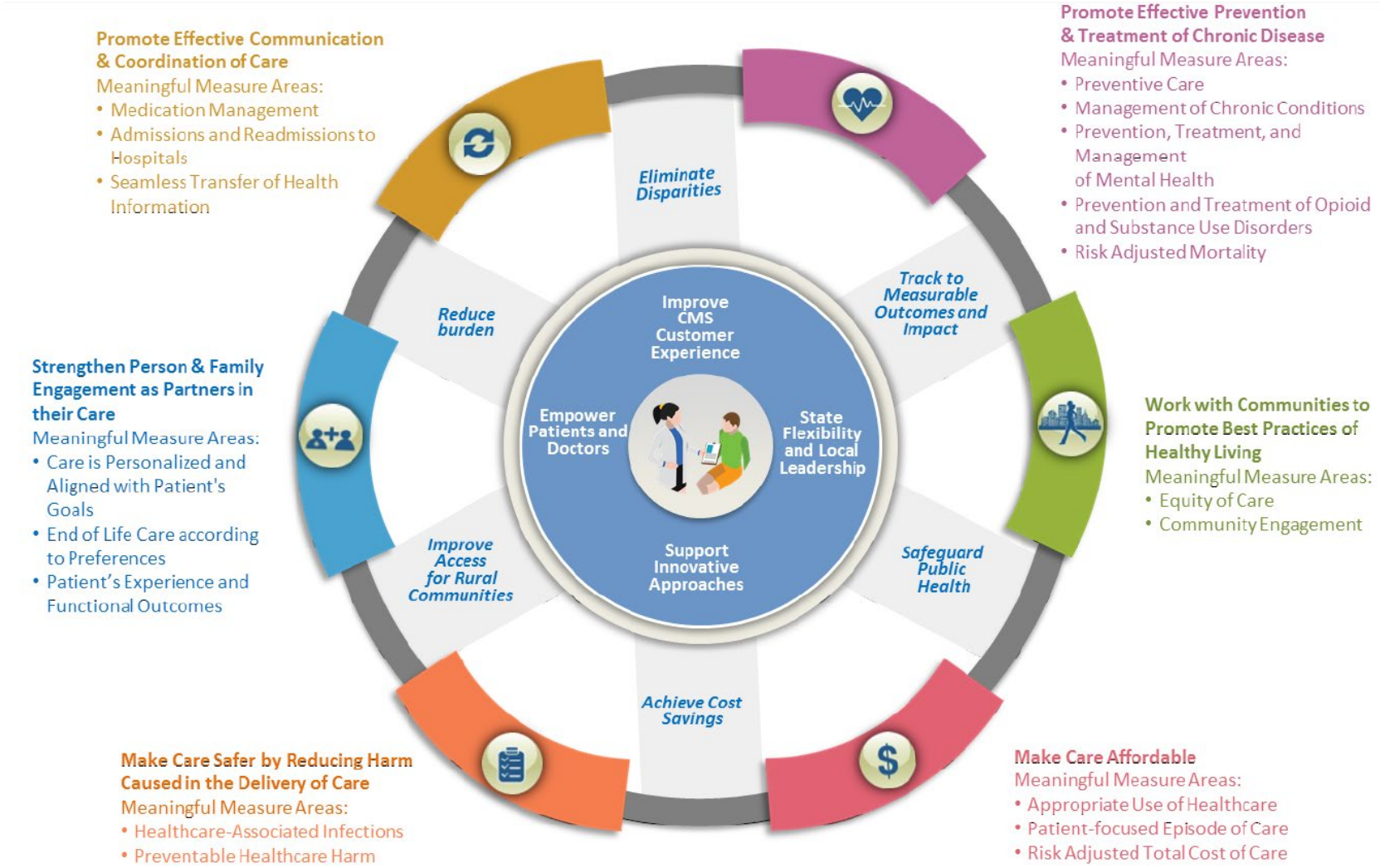
Rationale: Finally, our aims direct our actions. Recommendation 6 is designed to further emphasize HRSA's valuing of the experience of the practitioner and the relationship between their well-being and the quality of patient care, cost of care, and resilience and retention of the practitioner. Interprofessional team-based care is one important protective factor for practitioner well-being.

The Health Resources and Services Administration (HRSA) is uniquely positioned to promote the spread of Age-Friendly Health Systems. These areas are addressed in HRSA's Geriatrics Workforce Enhancement Program (GWEP) under the purview of the ACICBL charter. HRSA's workforce development programs are vital to filling the need for expanding and improving the health care workforce. Clinical training could provide an increased focus on preparing clinicians to deliver care in an age-friendly manner across all types of clinical settings, and HRSA's Title VII programs could accelerate the trend toward Age-Friendly Health Systems, engaging more allied health professionals and institutions.

The recommendations of ACICBL will promote broad changes within the health care system to advance age-friendly practices, train the health care workforce in age-friendly care, and improve the care of older adults, while also addressing the reduction of burnout and the promotion of wellness and resilience among health care providers. This moment presents an opportunity to create the aspirational Age-Friendly Health Systems of the future today.

Appendix A: Meaningful measures

This figure by Moody-Williams, Yong, and Long (2017, p6) illustrates how creating Age-Friendly Health Systems may impact the larger community in the United States and meet CMS quality outcomes.



Appendix B: Application of Geriatrics Competencies to 4Ms Framework

4Ms Competency Areas	Multidisciplinary Competencies in the Care of Older Adults at the Completion of the Entry-level Health Professional Degree
What Matters	"Each competency should be considered in the context of the unique characteristics and needs of older adults, with an emphasis on ensuring person-centered and -directed care that supports the dignity, autonomy, and rights of each older person." (Considerations regarding implementation of competencies, p. 2) "Develop treatment plans based on best evidence and on person-centered and -directed care goals." (Domain 3: Care Planning and Coordination Across the Care Spectrum (Including End-of-Life Care), sub-competency 1, p. 3) "Evaluate clinical situations where standard treatment recommendations, based on best evidence, should be modified with regard older adults' preferences and treatment/care goals, life expectancy, co-morbid conditions, and/or functional status." (Domain 3: Care Planning and Coordination Across the Care Spectrum (Including End-of-Life Care), sub-competency 2, p. 3) "Develop advanced care plans based on older adults' preferences and treatment/care goals, and their physical, psychological, social, and spiritual needs." (Domain 3: Care Planning and Coordination Across the Care Spectrum (Including End-of-Life Care), sub-competency 3, p. 3) "Know how to access and explain the availability and effectiveness of resources for older adults and caregivers that help them meet personal goals, maximize function, maintain independence, and live in their preferred and/or least restrictive environment." (Domain 5: Caregiver Support, sub-competency 3, p. 3) Evaluate the continued appropriateness of care plans and services based on older adults' and caregivers' changes in age, health status, and function; assist caregivers in altering plans and actions as needed." (Domain 5: Caregiver Support, sub-competency 4, p. 3) "Serve as an advocate for older adults and caregivers within various health care systems and settings.: (Domain 6: Health Care Systems and Benefits, sub-competency 1, p. 3) "Know how to access, and share with older adults and their caregivers, information about the health care benefits of programs such as Medicare, Medicaid, Veterans' Services, Social Security, and other public programs." (Domain 6: Health Care Systems and Benefits, sub-competency 2, p. 3)

What Matters	"Provide information to older adults and their caregivers about the continuum of long-term care services and supports – such as community resources, home care, assisted living facilities, hospitals, nursing facilities, sub-acute care facilities, and hospice care." (Domain 6: Health Care Systems and Benefits, sub-competency 3, p. 3)
Medications	"Recognize the principles and practices of safe, appropriate, and effective medication use in older adults." (Domain 1: Health Promotion and Safety, sub-competency 4, p. 3). "Apply knowledge of the indications and contraindications for, risks of, and alternatives to the use of physical and pharmacological restraints with older adults." (Domain 1: Health Promotion and Safety, sub-competency 5, p. 3)
Mentation	"Advocate to older adults and their caregivers interventions and behaviors that promote physical and mental health, nutrition, function, safety, social interactions, independence, and quality of life." (Domain 1: Health Promotion and Safety, sub-competency 1, p. 3) "Apply knowledge of the biological, physical, cognitive, psychological, and social changes commonly associated with aging." (Domain 2: Evaluation and Assessment, sub-competency 2, p. 3) "Choose, administer, and interpret a validated and reliable tool/instrument appropriate for use with a given older adult to assess: a) cognition, b) mood, c) physical function, d) nutrition, and e) pain." (Domain 2: Evaluation and Assessment, sub-competency 3, p. 3) "Demonstrate knowledge of the signs and symptoms of delirium and whom to notify if an older adult exhibits these signs and symptoms." (Domain 2: Evaluation and Assessment, sub-competency 4, p. 3) "Develop verbal and nonverbal communication strategies to overcome potential sensory, language, and cognitive limitations in older adults." (Domain 2: Evaluation and Assessment, sub-competency 5, p. 3)
Mobility	"Assess specific risks and barriers to older adult safety, including falls, elder mistreatment, and other risks in community, home, and care environments." (Domain 1: Health Promotion and Safety, sub-competency 3, p. 3)

Source: Kennedy, T. (2018) Adapted from Partnership for Health in Aging. (2009). *Multidisciplinary Competencies in the Care of Older Adults at the Completion of the Entry-level Health Professional Degree*. American Geriatrics Society.

Acronym and Abbreviation List

4Ms Framework	Focus on what *matters* to the older person Avoid potentially harmful *medications* Have a patient-centered *mobility* plan Screen for and treat *mentation* problems
AARP	American Association of Retired Persons
ABMS	American Board of Medical Specialties
ANCC	American Nurses Credentialing Center
ACE	Acute Care for the Elderly
ACICBL	Advisory Committee on Interdisciplinary, Community-Based Linkages
ACOTE	Accreditation Council for Occupational Therapy Education
ACPE	Accreditation Council for Pharmacy Education
AGHE	Academy for Gerontology in Higher Education
AGS	American Geriatrics Society
AHA	American Hospital Association
AOBFP	American Osteopathic Board of Family Physicians
ARC-PA	Accreditation Review Commission on Education for the Physician Assistant, Inc.
BHW	Bureau of Health Workforce
CAA	Council on Academic Accreditation in Audiology and Speech-Language Pathology
CAPTE	Commission on Accreditation in Physical Therapy Education
CCNE	Commission on Collegiate Nursing Education
CEPH	Council on Education for Public Health
CHA	Catholic Health Association
CMS	Centers for Medicare and Medicaid Services
COCA	Commission on Osteopathic College Accreditation
CODA	Commission on Dental Accreditation
COPE	Care of Persons with Dementia in their Environment
CSWE	Council on Social Work Education
DMD	Division of Medicine and Dentistry
DO	Doctor of Osteopathic Medicine
EHR	Electronic Health Record
FACA	Federal Advisory Committee Act

FRAIL	Fatigue, Resistance, Ambulation, Illnesses, & Loss of Weight
GITT	Geriatric Interdisciplinary Team Training Program
GRACE	Geriatrics Resources for Assessment for Care of Elders
GWEP	Geriatrics Workforce Enhancement Program
HPAC	Health Professions Accreditors Collaborative
HRSA	Health Resources and Services Administration
IHI	Institute for Healthcare Improvement
INTERACT	Interventions to Reduce Acute Care Transfers
IOM	Institute of Medicine
IPEC	Interprofessional Education Collaborative
LCME	Liaison Committee on Medical Education
MD	Doctor of Medicine
NOFO	Notice of Funding Opportunity
POGOe	Portal of Geriatrics Online Education
RGA	Rapid Geriatric Assessment
RRC	Residency Review Committee
SARC-F	Strength, Assistance with walking, Rise from a chair, Climb stairs and Falls
SNAQ	Simplified Nutritional Assessment Questionnaire
WHO	World Health Organization

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