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Using the IHI 4Ms Framework within an affordable housing clinical experience: Lessons in Health Equity and Age-Friendly Geriatric Care

Margaret Avallone DNP, RN, CCRN-K, CNE
Elyse Perweiler MA, MPP, RN
Rutgers University Camden School of Nursing
Camden, NJ USA

Rutgers, The State University of New Jersey

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Acknowledgments

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Purpose

Describe how implementation of the IHI 4Ms Framework can be used as a curricular strategy surrounding geriatrics and health equity.

Project aims:

Integrate IHI AGE-Friendly 4Ms Framework into an existing baccalaureate nursing community clinical experience to:
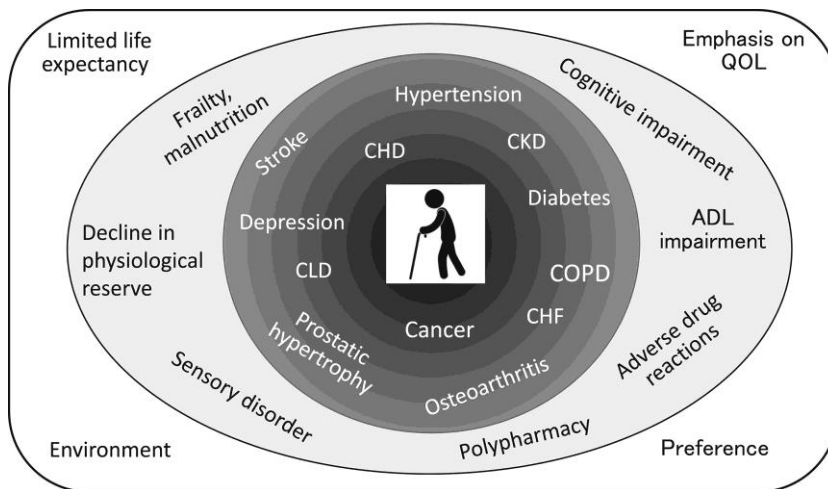
- Enable healthcare access for underserved older adults
- Improved preparation of the emerging healthcare workforce

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Aging U.S. Population
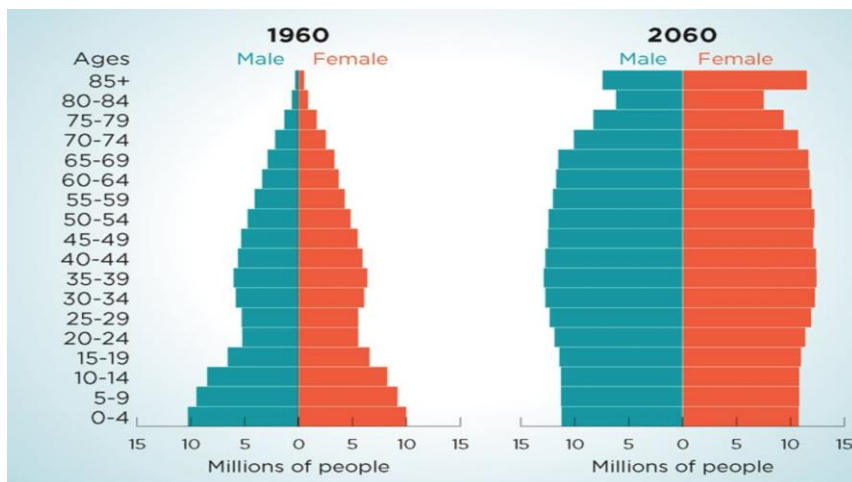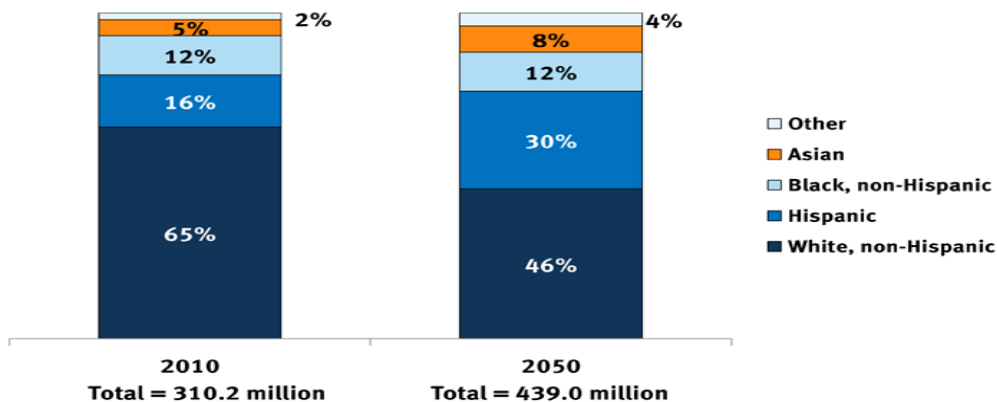

U.S. Dept of Commerce 2017

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Increased prevalence of chronic conditions in older adults

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Distribution of U.S. Population by Race/Ethnicity, 2010 and 2050

NOTES: All racial groups non-Hispanic. Other includes Native Hawaiians and Pacific Islanders, Native Americans/Alaska Natives, and individuals with two or more races. Data do not include residents of Puerto Rico, Guam, the U.S. Virgin Islands, or the Northern Marina Islands.
SOURCE: U.S. Census Bureau, 2008, Projected Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: July 1, 2000 to July 1, 2050. http://www.census.gov/population/www/projections/downloadablefiles.html.

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Re-designed clinical experience using the 4Ms Framework
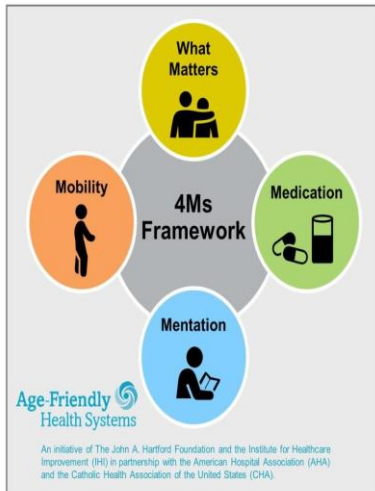
What Matters
Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.

Medication
If medication is necessary, use Age-Friendly medication that does 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 settings of care.

Mobility
Ensure that older adults move safely every day in order to maintain function and do What Matters.

- **What matters**: Assess and plan care considering individual resident goals
- **Medications**: Assess medication usage in the home; Implement interventions to reduce ADE
- **Mentation**: Screen for dementia and depression using the Minicog and PHQ-2
- **Mobility:** STEADI toolkit to screen, assess risk for falls and plan interventions.

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Clinical experience objectives

Assessment: Assess healthcare needs of vulnerable residents using a screening tool.

Mentation: Screen for dementia and depression using evidence-based tools (MiniCog, PHQ-2) and refer appropriately.

Mobility: Assess mobility and implement evidence-based strategies to prevent fall-related injuries.

Medications: Screen residents and recommend changes to reduce med-related adverse drug events (ADEs) using evidence-based resources.

IP teamwork: Use a interprofessional team based approach to address unmet client needs in an underserved population.
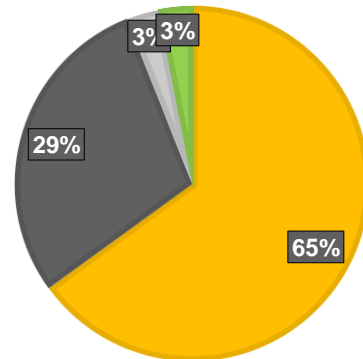
Health Promotion: Identify and implement evidence-based strategies for health promotion and behavior change for vulnerable residents based on **What Matters**

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Setting: Subsidized housing highrise, Camden, NJ

- Camden NJ 2012 "most impoverished city in U.S."
- Housing Development residents
  - Majority of residents disabled and below the poverty line
  - **65**% of residents over the age of 65
  - **95**% underserved persons of color
  - **64**% mobility-related disabilities.
  - **51%** ED utilization vs **20%** national

US Census, Fairshare Support Services data

Legend: Hispanic, Black, white, Other

Pie chart values: 65%, 29%, 3%, 3%

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NJ- Geriatric Workforce Enhancement Program (GWEP)

- 5 year grant
- DHHS/HRSA supported
- Grant Goal: "Develop a healthcare workforce that integrates geriatrics into primary care and maximizes patient/family engagement".

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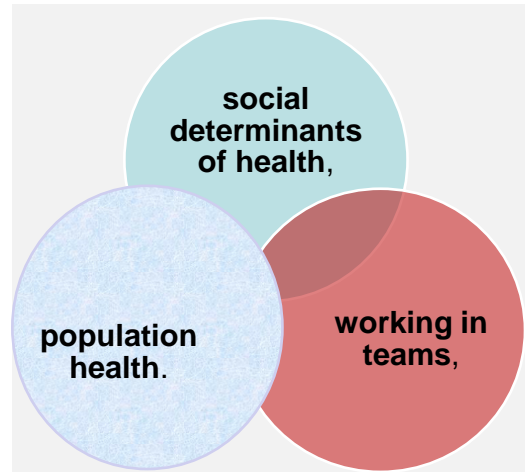
Orientation Topics: Hybrid delivery

- **4Ms Framework overview**
- **Resident Health Risk assessment form**
- **What matters**
  - Person-centered goal planning
  - Working with an interpreter
  - Advanced care planning

- **Medication** in the older adult
- **Mentation**
  - Dementia, depression, delirium review
  - MiniCog- video, practice, demonstration
- **Mobility-**
  - CDC STEADI module, functional assessments

Clinical Structure

Community Health Nursing and Global Health clinical:

Senior BSN students.

Paired with social workers

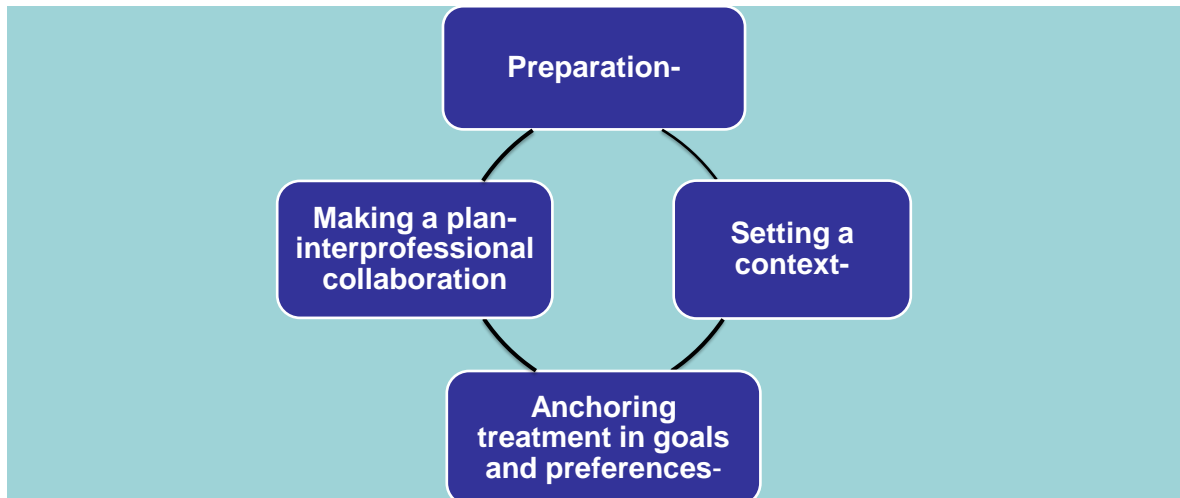Resident appointments prioritized for older residents with:

- Recent hospital discharge
- two or more chronic illnesses
- potential safety or fall concerns
- cognitive concerns

Resident Health Risk Assessment

- **Structured based on the 4Ms**
- Both social work and healthcare/nursing information
  - Demographics
  - Health history and health risk factors
  - Medications and administration
  - Drug/alcohol usage
  - Hospitalizations

- Cognitive assessment/mood
- Fall risk/Assistive devices
- ADLs/ IADLs
- Social determinants
  - Loneliness
  - Food insecurity
  - Violence
  - financial

"What Matters" Conversations

Preparation-

Making a plan-interprofessional collaboration

Setting a context-

Anchoring treatment in goals and preferences-

IHI 4Ms Framework

Medications: Assessment

- Duplication/polypharmacy
- Knowledge deficit
- Administration issues
- Organization issue
- Nonadherence
- High risk medications

Medication interventions

Consultation with PharmD faculty

- Review medications based on Beers Criteria
- Re-organization/pillbox
- Med "clean up"
- Med schedule change
- Lifestyle modification or disease management education

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Dementia Screening: Minicog assessment

- Minicog assessment
- Takes about 2 min.
- Evaluate **student** proficiency first
- **Residents** who screen positive referred to Memory Assessment program

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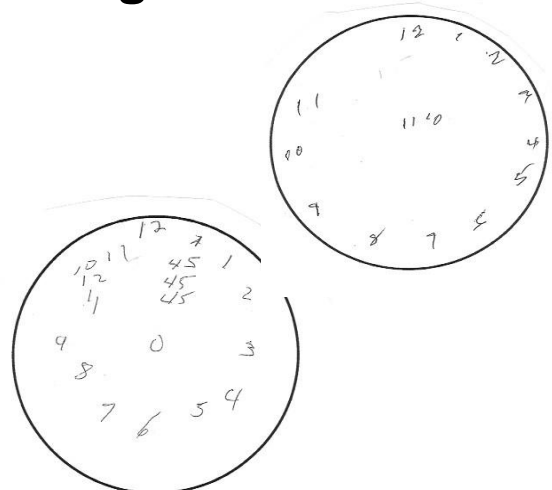
Mobility: CDC STEADI Fall risk Algorithm

- **Screening questions**
  - Are you worried about falling?
  - Have you fallen in the last year?
  - Do you feel unsteady when standing or walking?
  - CDC STEADI algorithm

- **Assessments** if *yes* to screening
  - Orthostatic BP
  - High risk meds
  - Assistive devices
  - Environmental review
  - Timed up and GO (TUG)
  - Comorbid conditions?

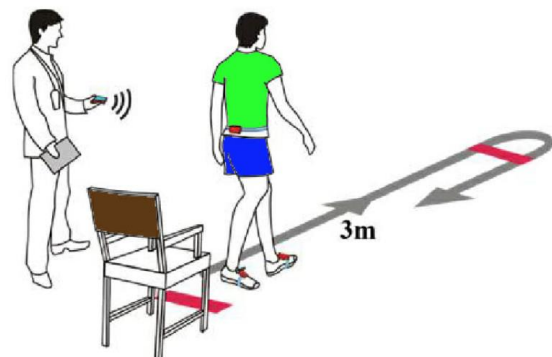CDC STEADI

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Mobility

- If resident at risk for falls based on the STEADI Algorithm, students performed

  "Timed up and Go" (TUG) assessment.
  - Abnormal >12 sec.
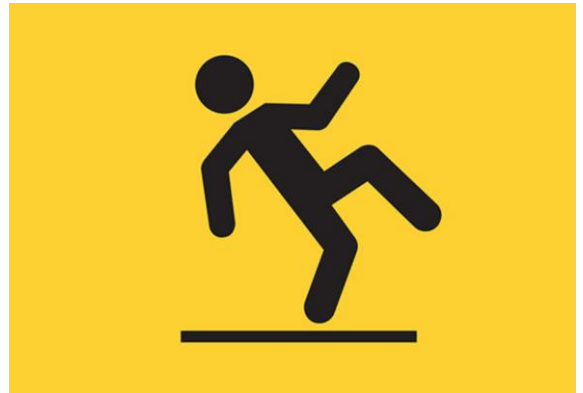
Timed up and Go

Timed Up and Go (TUG)

CDC STEADI

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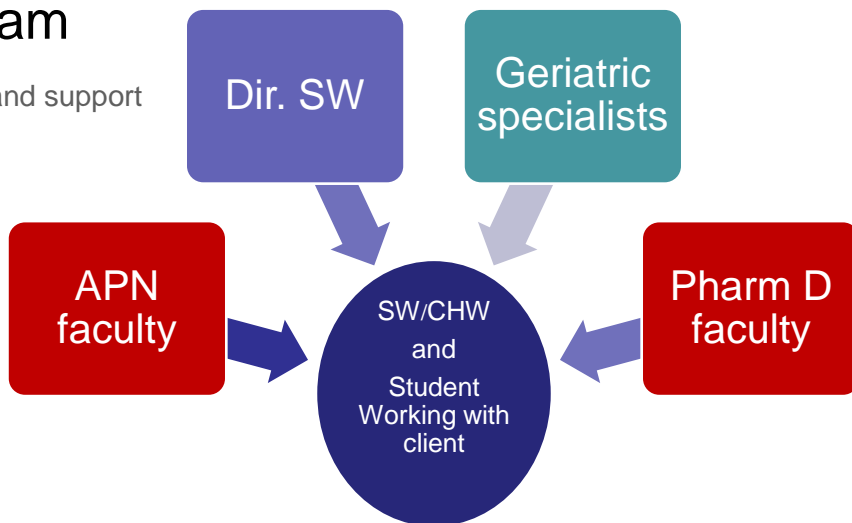# Mobility: Interventions- STEADI

- Consider physical therapy
- Optimize medications (be mindful of meds that increase fall risk
- Home safety assessment
- Refer to ophthalmologist
- Address footwear
- Consult PCP- management of comorbidities including BP

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IP Team

- Team and support

Dir. SW

Geriatric specialists

APN faculty

SW/CHW and Student Working with client

Pharm D faculty

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Interprofessional Team Conferences

Weekly: based on the IHI 4Ms Framework

What matters to the resident

Medications

Mobility

Mentation

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Evaluation methods

From **Sept 2019** through **May 2021**, **25** nursing students participated in the redesigned 4Ms interprofessional clinical experience

During COVID, online learning modules (4Ms and geriatric best practice) were provided to all senior graduating students **(n=204**)

Residents were screened for issues related to **mentation, mobility, medication, and "what matters".**

Students delivered weekly case presentations to faculty, social service staff and geriatric specialists.

Program Results

1. Students demonstrated **competence** conducting geriatric assessments and counseling **(**direct observation)

2. **Positive change in knowledge** (M=1.8-2.4) reported in four content areas related to the 4Ms (retrospective pretest-posttest survey).

3. Students rated **achievement of learning objectives** (M=4.4-4.8) (1-5 scale)

4. Open ended student comments indicated the **value of the experience**
   Social determinants of health
   Barriers older individuals face when managing chronic health problems

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Retrospective Pre-post Change in Knowledge n=25

		mean	
pre	1-novice 2-advanced beginner 3 competent 4 proficient 5 expert	post	diff
2	**What matters:** Identify the importance of asking "**What matters**" when planning person-based care in older adults	4.4	2.4
2.2	Explain the relationship between **social determinants** of health, health risk factors, and patient outcomes.	4.6	2.4
2.3	Describe opportunities for **advocacy** and collaboration with **community** and **clinical partners** that can be used to address unmet patient needs.	4.1	1.8
2	Explain the link between culture and its influence on individuals, communities, and provision of **culturally appropriate health care**.	4.1	2.1
2.8	Identify the importance of the **interprofessional team-based approach** when making healthcare decisions	4.2	1.4

Learning objectives n=25

1-5 scale   1= not met to 5 = completely met
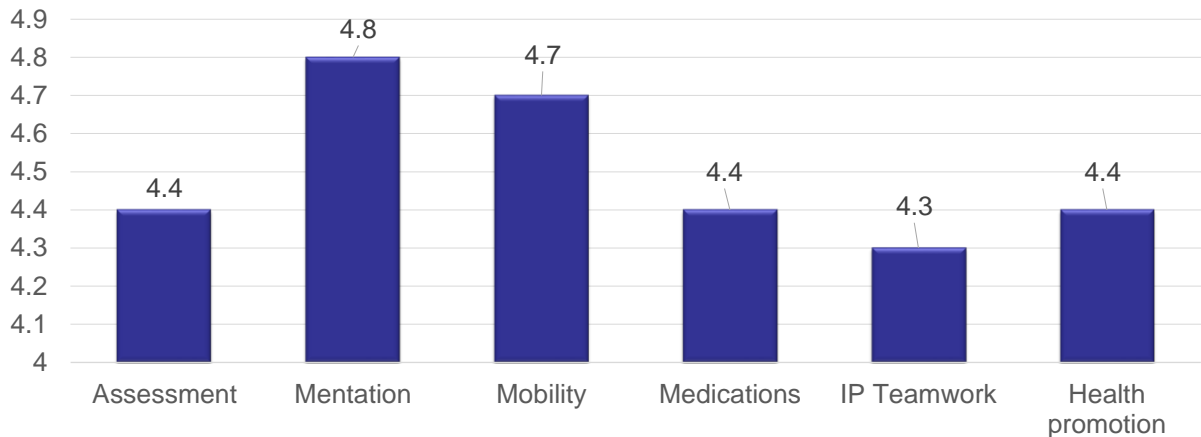
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Nursing Student reflections on experience

- **What matters**

  "Recommending to remove a rug to prevent falls isn't that simple when it is someone's home and a cherished possession".

- **Social determinants of health**

  "Seeing first-hand the impact of social determinants on health made it real for me".
  "I will do a better job at discharge planning, knowing the barriers that some face".

- **Interprofessional learning**

  "I learned a lot from my social worker, and I think she learned from me".
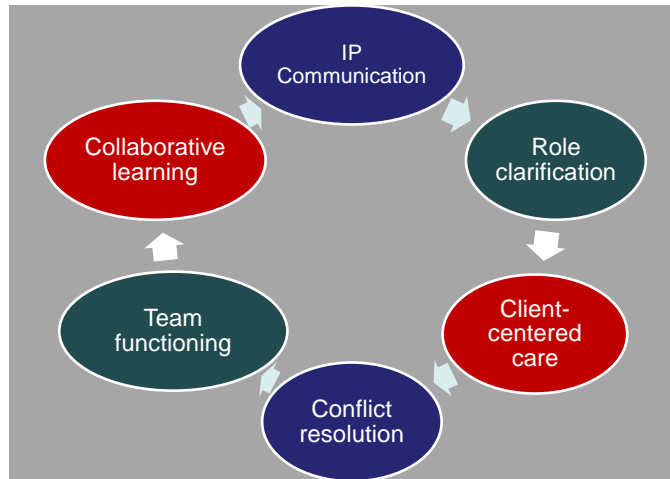 "I learned what they do and how they advocate for residents in the community".

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Building the Interprofessional Team

"Interprofessional Education occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care".
(Centre for the Advancement of Interprofessional Education (CAIPE, 2002)
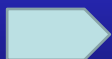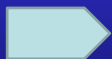

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Summary

The 4Ms Framework is an effective strategy to teach geriatric-based competencies to undergraduates.

Curricular rapid cycle quality improvement project

Requires strong academic community-based partnership

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References

- Avallone M, Perweiler E, Pacetti S. (2020) Using the 4Ms framework to teach geriatric competencies in a community clinical experience. *Nursing Forum. 1-6.* doi: 10.1111/nuf.12511

- American Geriatrics Society. Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults**.** *J Am Geriatr Soc.*2019. Apr;67(4):674-694. doi: 10.1111/jgs.15767

- Avallone MA, Cantwell R. Pacetti S. (2018). Clinical introduction into population health management using a peer mentoring strategy. *Journal of Nursing Education and Practice.9(4). 79-85.*

- Centers for Disease Control and Prevention: STEADI: Stopping Elderly Accidents, Deaths, and Injuries. Older Adult Fall Prevention. Accessed July 4, 2020. https://www.cdc.gov/steadi/index.html

- Chopra A. Geriatrics Workforce Enhancement Program (NJGWEP) U1QHP28714. Project Abstract. Supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS).

- Institute for Healthcare Improvement (IHI): Age-Friendly Health Systems: Guide to using the 4Ms in the care of older adults. http://www.ihi.org/Engage/Initiatives/Age-Friendly-Health-Systems/Documents/IHIAgeFriendlyHealthSystems_GuidetoUsing4MsCare.pdf

- Patterson MA, Fair M., Cashman SB, Evans CE, Garr D. (2015). Achieving the Triple Aim: A curriculum framework for health professions education. American Journal of Preventative Medicine 49(2); 294-296. http://dx.doi.org/10.1016/j.amepre.2015.03.027

- Schmidt NA, Brown JM. (2016). Service-learning in undergraduate nursing education: Strategies to facilitate meaningful reflection. Journal of Professional Nursing. 32(2):100-106. Doi: 10.1016/j.profnurs.2015.06.006