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Preventing Falls during Staffing Variability - Strategies for Acute and Skilled Care

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www.ecri.org

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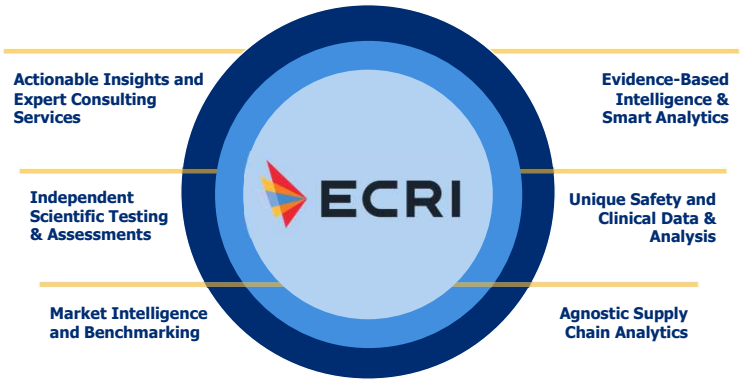
The ECRI Difference | Data Empowers. ECRI Delivers.

ECRI is a leading independent patient safety authority, reducing preventable harm, and making healthcare more transparent and accessible.

- 50+ years of experience as a global leader in patient safety
- At the forefront of research of technologies, patient safety, quality, and evidence-based medicine
- ECRI and Institute for Safe Medication Practices (ISMP) Patient Safety Organization among largest PSOs in U.S



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ECRI Aging Services | What We Do

Risk Management

Guidance and on-site consultation for risk management, including membership to our growing library of aging services risk management literature, tools, and templates.

Patient Safety

Expertise in critical areas of patient safety, including falls prevention, culture of safety, infection control, adverse events, and safety in post-acute care.

Quality

Data-driven solutions to improve quality of care and hands-on support through performance improvement projects, including data analysis.

Education

Our team is sought after for in-person training and virtual education to address current issues in risk management, patient safety, and quality improvement.

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Objectives

- Examine recent staffing trends and the impact of staffing variability on patient falls and outcomes.
- Review strategies to prevent and manage falls when staffing is inconsistent.
- Evaluate areas where implicit bias can influence falls.

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Nursing staff account for HALF of the health workforce worldwide, and the cost of providing inpatient hospital nursing is one of the main cost drivers for health systems.
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WHO, 2016.

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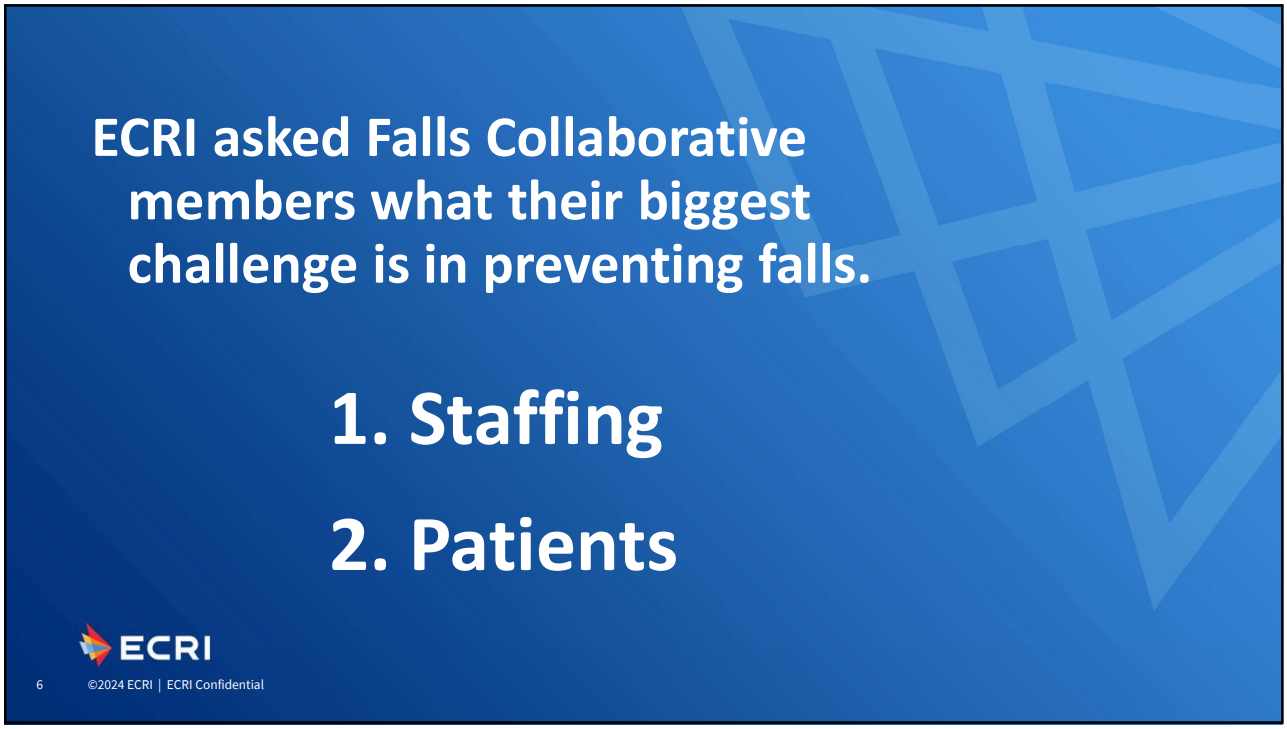
ECRI asked Falls Collaborative members what their biggest challenge is in preventing falls.
1. Staffing
2. Patients
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Examine recent staffing trends and the impact of staffing variability on patient falls and outcomes.

Objective One

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Acute Care Nursing Shortages

- Over 5 million RNs working in the U.S. today.
- Employment projected to grow 9% through 2030.
- 193,100 openings for RNs each year through 2032.
- Shortage of 78,610 full-time RNs in 2025.
- Top 3 states with the largest projected nursing shortage in 2035 are Washington, Georgia, California.
- Total supply of RNs decreased by more than 100,000 from 2020 to 2021 – the largest drop ever observed over the past four decades.
- In 2020, the median age of RNs was 52 years with >1/5 intent to retire over the next 5 years.

>25% of RNs plan to leave the profession in the next five years.

Contributing Factors to the Nursing Shortage

A shortage of nursing school faculty is restricting nursing program enrollments.	A significant segment of the nursing workforce is nearing retirement age.
Changing demographics signal a need for more nurses to care for our aging population.	Amplified by the pandemic, insufficient staffing is raising the stress level of nurses, impacting job satisfaction, and driving many nurses to leave the profession.

AACN, 2024
Costa et al., 2024
Woodward and Willgerodt, 2022

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Skilled Nursing Care Staffing Shortages

CNAs provide 80% of direct care to residents.

13.3% decrease in skilled care sector employment since the start of the pandemic.

Only 2% of all skilled nursing orgs in the US reported being fully staffed in 2022.

84% of senior living orgs currently face moderate to high staffing shortages.

- Employment needs for CNAs is projected at 8% between the years 2020 and 2030.
  - Openings are expected to result from the need to replace workers who transfer to different occupations or exit labor force.
  - Demand for CNAs is anticipated to more than double from 2020 - 2030

Brazier et al., 2023
Miller et al., 2023
Ghandi et al., 2021

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Impact of Staffing on Falls

Research focused on adverse events and patient outcomes can be applied to falls.

Discrepancies in Evidence

Hessels et al. (2019) found no association between missed care and falls.

Recio-Saucedo et al. (2018) reported that only two out of four studies found significant associations between missed care and patient falls.

Tuinman et al. (2021) reported mixed results on the relationship between staffing levels and patient falls.

Nantsupawat et al. (2022) reported higher numbers of patients per nurse were associated with higher missed care and increased adverse events.

- A higher number of patients per RN is associated with a higher percentage of RNs reporting falls with injury.
- An increase in the number of RNs is associated with a reduction in falls among hospitalized patients.
- The association between RN staffing and falls is not always consistent.

Alanazi et al., 2022

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RN and CNA Turnover

- Top reasons for RN turnover
  - Better pay/ benefits (33.6%)
  - Lack of good management or leadership (32.7%)
  - Stressful environment (30.4%)
  - Inadequate staffing (25.2%)
  - Burnout (25.0%).
- Internal turnover accounts for 1/3 of all RN turnover.
- Nursing turnover costs the average hospital $6.6 -$10.5 million each year.

For CNAs, too few hours or too many hours worked increases turnover.

- Top reasons for CNA turnover in skilled care:
  - Poor interpersonal relationships
  - Understaffing
  - Intensive hands-on Care
  - Lack of resources and training
- High CNA turnover has negative impacts on patient health
- High coworker variability increases turnover

Jones et al., 2024 | Alanazi et al., 2022
Costa et al., 2024 | May o et al., 2024
Woodward and Willgerodt, 2022 | Miller et al., 2024
Suran, 2023 | Castle et al., 2020

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LTC Staffing Standards

- CMS rule:
  - Every LTCF must have at least 1 RN on duty at all times
  - 3.48 hours per resident day
    - 0.55 hours from RN
    - 2.45 hours from CNA
    - Additional 0.48 hours from any nursing staff
- Proposed staffing standards are not high enough to ensure quality care.
- Less than 20% of LTCF would currently meet the new CMS requirements for hours if enacted.
- Mixed reviews, not resident-centered
  - ANA supports the rule

CMS, 2024

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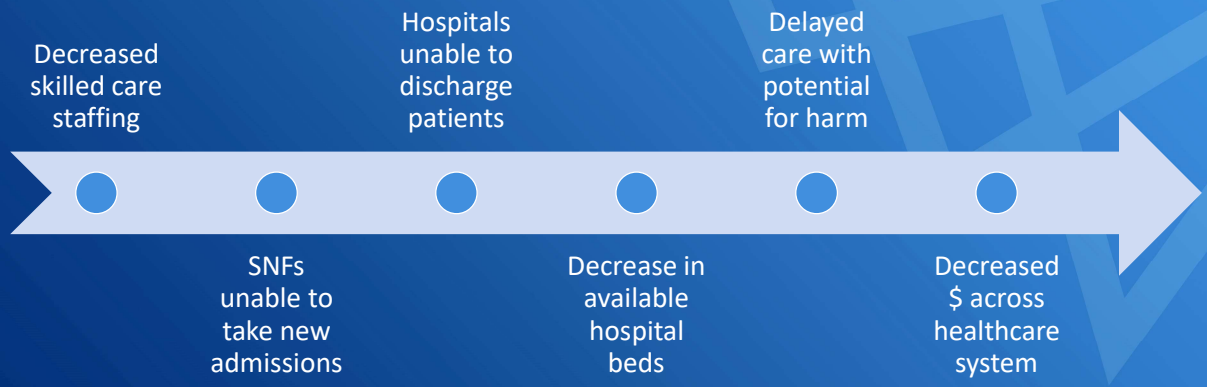
Staffing issues in skilled care directly effect hospitals.



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Understaffing does NOT lead to cost saving.

What it does lead to:

- Longer patient stays
- Increased adverse events (falls!)
- Lower quality of care
- Poorer patient outcomes
- Lower patient satisfaction
- Lower staff satisfaction
- Staff burnout
- Staff turnover

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Griffiths et al., 2023

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RNs are Protective

- Higher RN staffing levels and skill mix in hospitals are associated with improved care quality and patient outcomes, most notably reduced risk of death.
- Exposure to higher than the mean RN hours per patient day in the first 5 days of a hospital admission is associated with decrease in adverse events.
- Higher RN staffing levels or skill mix can reduce complications, such as infections, and shorten length of stay.
- A richer RN skill mix offers better patient outcomes at lower cost.
- Greater proportion of RNs is associated with better outcomes for patients and nurses.
  - Reducing nursing skill mix by adding CNAs may contribute to preventable deaths, erode care quality, and contribute to nurse shortages.

RNs playing a key role in hospital systems for early detection of threats to patient safety and timely remedial intervention.

Dall'Ora et al., 2022
Griffiths et al., 2019
AACN, 2024

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Staffing Variability

Licensure & Certifications	Competency	Years of Experience
Skill Mix	Supervision	RN/CNA Proportions
Stability & Consistency	RN/Patient Ratios	CNA/Resident Ratio

Dall'Ora et al., 2022

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Nursing Skill Mix

- The proportion of different nursing grades, and levels of qualification, expertise, and experience.
- Skill mix for direct patient care refers to a mix of licensed nurses (RNs, LPNs) and unlicensed assistive personnel (CNAs, aides, techs).
- Skill mix is a key staffing area to address as leadership is tasked with finding innovative ways to maintain positive patient outcomes amid shortages and manage escalating costs of staffing.

RN staffing is an indisputable component of safe, high quality patient care.

- No improvements in falls after replacing 3 of 25 RNs with 7 CNAs.
- No significant difference in fall rates upon the addition of CNAs to all-RN unit.
- Units with a higher proportion of licensed nursing staff had a lower incidence of safety events and better functional and social outcomes.
- Units employing a higher proportion of licensed nursing staff are noted to have higher perceived care quality by nurses.

A higher proportion of RNs is associated with a lower prevalence of adverse patient outcomes.

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Cermak et al., 2024

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Missed/Omitted care is NOT always due to understaffing

- Missed care tasks most related to understaffing and/or high care demands:
  - Ambulation
  - Administrating scheduled medication
  - Assessing vital signs
  - Teaching about illness
  - Emotional support
  - Counseling and training
  - Adequate surveillance of cognitive impaired patients
  - Timely responding to patient call lights
  - Discharge planning or attending interdisciplinary care conferences

- Missed care tasks most related to poor allocation of material resources and/or poor work environment and communication:
  - Turning and repositioning
  - Body and oral care
  - Feeding and monitoring intake/output
  - Timely administration of PRN medication management
  - Assisting with toileting needs

The consequences of short staffing ***cannot*** be fixed by additional staff on other days.

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Cartaxo et al., 2024
Jones et al., 2015

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Review strategies to prevent and manage falls when staffing is inconsistent.

Objective Two

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Strategies – Falls Management

It takes a village!

1. If baseline staff and/or skill mix is low, supplement staffing with RN hours.
2. Add other resources (equipment, technology, education/training).
3. Assign a Falls Champion.
4. Transparency to staff on falls performance - perception matters!
5. Implement interventions through human factors engineering.
6. Improve post-fall assessment and actions - prevent the NEXT fall!
7. Review Purposeful Rounding protocols.
8. Review how all nursing levels are oriented, monitored, audited, and continuously trained in falls prevention.
9. Improve documentation & communication about fall risk from hospital to skilled care.
10. Implement falls interventions that don't require staff direct care:
    - Sleep quality/schedules
    - Medication reviews
    - Nutrition and hydration
    - Environmental

Griffiths et al., 2023
Alanazi et al., 2023

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Strategies – Falls Management

It takes a village!

11. Don't assume a process or intervention won't work when there is a gap in evidence.
12. Get therapy more involved in falls prevention.
    - Early evaluations and mobility recommendations
13. Address staff variability.
    - Stability and consistency
    - Mix of skill and experience
14. Staff feedback – continuous!
    - Informal, 1:1, team meetings, formal surveys
15. Team STEPPS (or other communication improvement program).
16. Scrutinize falls data from past year.
    - Any trends around staffing?
17. Annual PIP targeting falls.
18. Prioritize support of CNAs
    - Prioritize work relationships and environment
    - $$$ and resources to build work relationships
    - Consistent staffing teams
    - Leadership support and encouragement
    - Continuous education and training based on their preferences (escape rooms are a hit!)

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Strategies – Workplace Environment for Nurses/CNAs

An optimal work environment for nurses is 'a practice setting that maximizes the health and well-being of professional nurses, quality patient or client outcomes, organizational performance and societal outcomes.' (RNOA)

- Nursing units with strong collaboration between nurses, staff physicians, and pharmacists were associated with fewer falls and lower nurses' perceptions of falls frequency.
- Nurse perception of safety culture is crucial in preventing patient falls.

- Determinants of a health work environment for RNs:
  - Effective nursing leadership
  - Effective communication
  - Effective teamwork
  - Professional autonomy
- Determinants of a healthy work environment for CNAs:
  - Relationships with supervisor
  - Relationships with nursing staff
  - Positivity and support
  - Education and training provided

Griffiths et al., 2023
Miller et al., 2024
Suran, 2023
Mabona et al., 2022

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Strategies - Organizational

87% of nurses stated improving nurse staffing as the most effective intervention for reducing burnout.

- Professional Practice Model (PPM)
  - PPM can lead to improvements in patient outcomes, **including falls with an injury.**
  - PPMs are one of the essential components of the Magnet Recognition Program®.

Key components to consider within a PPM	Visionary leadership
	Collaborative nursing practices
	Nurse development and recognition
	Autonomy within practice
	Participation in decision-making at an organizational level
	Professional growth
	Health-wellness support
	Respect

- Safety culture
  - The individuals' values and beliefs regarding what is essential in healthcare settings and their attitudes and behavior towards the appropriate and inappropriate actions and the management role in the rewards and punishments for better patient safety.
- Nursing units with a strong safety climate and safety behavior reported lower incidence rates of falls and less frequent nurses' perceptions of falls occurrence.

Doleman et al, 2023
Alanazi et al., 2023

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We cannot measure the absence of adverse events.

Measuring the absence of harm – *the adverse event that never happened; the preventable harm that was reduced; the amount of additional time given with loved ones* – will never really be known.

Know that all of your combined efforts have resulted in all of these things.

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Evaluate areas where implicit bias can influence falls.

Objective Three

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Implicit Bias in Healthcare

Implicit bias is a real, abundant, and a major problem in clinical decision making.

Implicit biases are attitudes and beliefs about race, ethnicity, age, ability, gender, or other characteristics that operate outside our conscious awareness and can be measured only indirectly.

Implicit biases surreptitiously influence judgment and can, without intent, contribute to discriminatory behavior.

A person can hold explicit egalitarian beliefs while harboring implicit attitudes and stereotypes that contradict their conscious beliefs.

- Implicit bias is a significant contributor to adverse events in healthcare.
- Bias impacts decision-making in healthcare and is a patient safety concern.
- Healthcare providers hold implicit biases at about the same rate as the public.

Thirsk et al., 2024
Sabin, 2022

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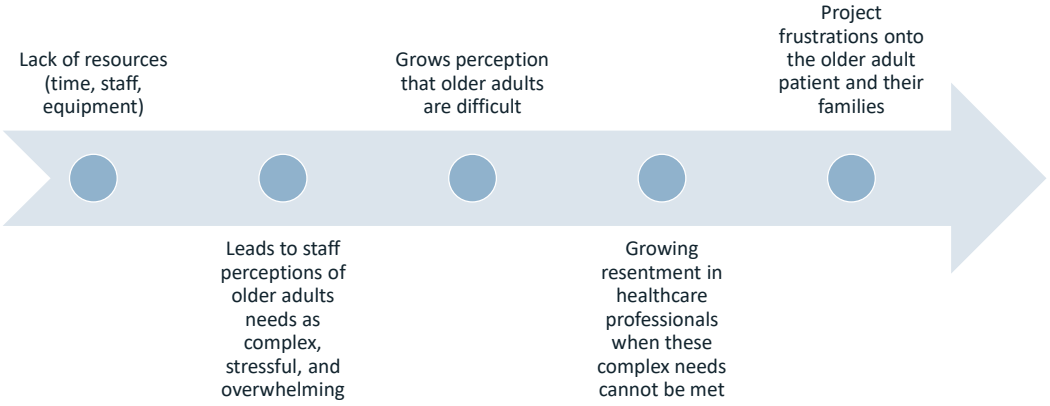
Implicit Ageism in Healthcare

Treatable conditions should not be dismissed as a feature of older age.



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Magee et al., 2024
Jeyasingam et al., 2023

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Ageism in Healthcare

- About 20% of people over 50 face age-based discrimination in healthcare.
- Ageism can contribute to:
  - Missed or delayed diagnoses
  - More emergency room visits
  - More frequent hospitalization
  - Cognitive decline
  - Increased disability
  - Lower quality of life
  - Poorer health outcomes
  - Depression
  - Shorter life span

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Ageism can shorten life span.

- Age bias shows up in the way that healthcare providers talk to patients and the degree to which they listen.
- A common form of ageism is "elderspeak."
  - "Honey," "Dear" or "Young lady"
  - Dumb down explanations
  - Use a sing-song voice
- Patients with poor hearing or eyesight say they are often treated as cognitively impaired.

Cedars-Sinai, 2023

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Ageism in Healthcare

The cost of ageism in the United States is ~$63 billion per year.

- Ageism adversely affects the range of diagnostic tests offered to older patients, medical treatment received, and treatment duration, frequency, and appropriateness.
- Ageism may prevent providers from asking the right questions and recommending preventative care, services, and interventions.

A provider might assume a 75-year-old patient doesn't need to, can't or won't exercise.	Exercise and lower body strengthening is a key intervention for preventing falls.
A provider might assume an 85-year-old patient cannot cognitively engage in ADLs and IADLs.	Engaging in ADLs and IADLs at any level helps to increase movement, mobility, and quality of life.
A provider might assume a 62-year-old does not have risks for falls.	Most falls occur at home and often related to home environment.

Yale News, 2020
APA, 2023

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Effects of Ageism on Older Adult Health

Older adults who take in more negative age beliefs tend to show worse physical, cognitive, and mental health.

Older adults with more negative feelings about getting older are more likely to experience higher levels of stress.

Older adults who feel fatalistic about getting older may be less likely to engage in healthy behaviors.

Negative self-perceptions of aging are associated with a higher prevalence for all eight of the most expensive health conditions in the US, which includes falls.

Older adults who are exposed to or develop more positive age beliefs tend to show benefits in physical, cognitive, and mental health.

APA, 2023

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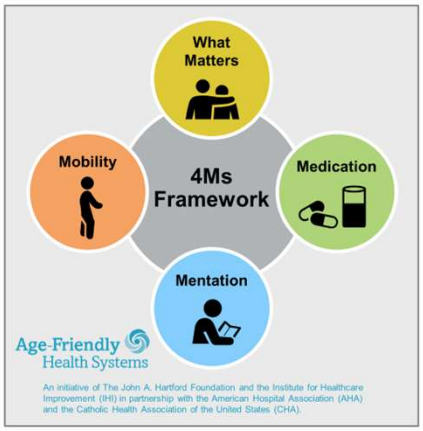
Age-Friendly Health System https://www.ihi.org/initiatives/age-friendly-health-systems

4M's Framework in acute care

- Ask the older adult What Matters most, and align with the care plan
- Review for high-risk medication use and document it
- Deprescribe or avoid high-risk medications, and document and communicate changes
- Screen for delirium at least every 12 hours and document results
- Ensure sufficient oral hydration
- Orient to time, place, and situation
- Ensure older adults have their personal adaptive equipment
- Support non-pharmacological sleep
- Screen for mobility limitations and document the results
- Ensure early, frequent, and safe mobility



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.

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Weight Bias in Healthcare

- Providers may alter medical practices and choices of treatment for patients with a BMI in overweight or obese, especially female patients.
- Weight bias affects rapport-building and ability to empathize.
- Weight bias may lead to less patient movement and mobility, leading to increased fall risk factors.

Weight bias may assume patients cannot move safely, with or without assistance and equipment.

- Nurses believed patients with obesity lacked self-control and working with obese patients to be physically exhausting and stressful.
- CNAs report not wanting to work with residents with obesity due to high intensiveness of care, time intensiveness, and the potential for personal injury.

Extensive planning and decision-making by SNFs to determine if they can potentially care for obese patients.

(High potential for weight bias)

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Sefcik, 2022
Hauff et al., 2019

Summary

- Staffing shortages for RNs and CNAs are critical and impact patient safety and falls.
- Evidence is inconsistent concerning staffing variability impact on falls, BUT clear evidence that RNs prevent adverse events and improve patient outcomes.
- Staffing shortages, variability, and inconsistency does NOT assume increased falls.
- Staffing issues in skilled care directly effects hospitals.

- Strategies to prevent falls through staffing challenges should target the falls program, workplace environment, and organizational culture.
- Age, weight, and cognition should not prevent implementation of fall prevention strategies.
- Consider implementing 4M's Framework to address ageism

Staffing strategies need to consider the impact of variability on adverse events and patient outcomes.

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Questions?

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