The Growing Health and Economic Burden of Older Adult Falls- Recent CDC Research

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Objectives

➢ Describe recent CDC research on health and economic burden of older adult falls
➢ Explain new STEADI evaluation studies
➢ Discuss CDC work in older adult mobility
NATIONAL MEDICAL COST OF OLDER ADULT FALLS
Older Adult Falls

The Concern:

Every second an older American falls. These falls threaten the health and independence of older adults and result in high medical costs across the U.S. healthcare system.

IN 2014:

1 in 4 older adults reported a fall.

More than 7 MILLION of those falls required medical treatment or restricted activity for at least a day.

More than 27,000 older adults died as a result of falls—that’s 74 older adults every day.
What is the Medical Cost of Fatal Falls?

- **Fatal**
  - $754 Million (2015)
    - CDC’s WISQARS (Web-based Injury Statistics Query and Reporting System)
What is the Medical Cost of Non-Fatal Falls?

➢ Old estimate of $31 Billion (2015)
  • Medicare only
  • Based on
    - Outpatient visits
    - Emergency Department visits
    - Hospitalizations
      - May miss costs not associated with a specific visit
      - Labor intensive involving multiple datasets

New Non-Fatal Estimate

New method to estimate non-fatal older adult falls cost

• Comprehensive including all payers (Medicare, Medicaid, Out-of-pocket/Other) and medical treatments
• Minimizes number of datasets
• Easier to update regularly
Medical Cost of Non-Fatal Falls

- $50 Billion Annually (2015)
  - $29 Billion Medicare
    - 6% of Medicare spending for older adults
  - $12 Billion Private/Out of Pocket
    - 5% of Private/Out of Pocket spending for older adults
  - $9 Billion Medicaid
    - 8% of Medicaid spending for older adults

FALLS AMONG OLDER ADULTS ARE

COSTLY

$50 Billion Annually

$29 Billion Medicare
$12 Billion Private/Out-of-Pocket
$9 Billion Medicaid

COMMON

1 in 4
Older adults (65+)
falls each year

PREVENTABLE

Clinicians can use STEADI to prevent falls & reduce costs


267913-A
GUIDANCE ON HOW TO ESTIMATE STATE MEDICAL COST OF OLDER ADULT FALLS


https://tinyurl.com/y7u7eyrd
Two Methods – Attributable Fraction

1. Apply national percent of medical expenses for older adult falls to state-specific expenditures for older adults
   a) More comprehensive accounting of medical costs
   b) Available for all 50 states
   c) Gives estimates by payer
      a) Medicare
      b) Medicaid
      c) Private/Out-of-Pocket
Two Methods – Count Applied to Cost

1. Apply state-specific emergency department visits and hospitalizations for older adult falls to average national cost
   a) Will respond more directly to state’s changes in medical visits for older adult falls
   b) Available for 17 states
      a) Additional states may have data available
   c) Provides cost estimates by place of service
      a) Emergency Department
      b) Hospital
Comparison of Two Methods

- Partial attributable fraction resulted in the higher estimate for all states compared except Utah.

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<th>State</th>
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<th>Count Applied to Cost Method</th>
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Dollars are shown in millions.
Range of State Medical Costs for Older Adult Falls

Estimates calculated using partial attributable fraction method

Alaska
$48 Million

California
$4.4 Billion
TRENDS IN OLDER ADULT FATAL FALLS

Deaths from Falls Among Persons Aged ≥ 65 Years – United States, 2007-2016

- CDC Morbidity and Mortality Weekly Report released May 11
- Used death certificate data
- Age-adjusted fall death rates for older Americans by
  - National
  - State
  - Sex
  - Race/ethnicity
  - Rural Status

MinnPost

SECOND OPINION

UCare generously supports MinnPost's Second Opinion coverage; learn why.

Death rate from falls among older adults has risen 31% over past decade
Increases in Fall Fatalities From 2007-2016

- Death rate
  - 2007: 47.0/100,000 population
  - 2016: 61.6/100,000 population
- 3.0% increase/year

Increases in Fall Fatalities From 2007-2016

- Rate increased in 30 states and D.C.
EVALUATING THE EFFECTIVENESS OF STEADI FOR OLDER ADULT FALL PREVENTION
STEADI Cost Effectiveness

Screen
Identify patients at risk for a fall

Assess
Identify modifiable risk factors

Intervene
Use effective clinical and community strategies

www.cdc.gov

STEADI Stopping Elderly Accidents, Deaths & Injuries
STEADI Cost Effectiveness

➢ Implement STEADI at selected Geisinger outpatient clinics in Pennsylvania

➢ Determine impact:
  • Self-reported falls & ED visits/hospitalizations for falls
  • Cost effectiveness
STEADI Cost Effectiveness

- **Four Arms**
  1. Full STEADI protocol
  2. Physical therapy only
  3. Medication management only
  4. Control group
Applying STEADI in an Inpatient Setting

- Incorporate STEADI initiative into inpatient process to prevent post-hospitalization falls
- Modify clinical workflow and electronic health record system
- Evaluate impact on readmissions for falls
Incorporate Medication Management for Opioids into Inpatient Project at UCSF

- Identify older adult inpatients at risk due to existing or new opioid use
- Enhance STEADI decision support to aid healthcare providers with tools and best practices
- Evaluate post-discharge use and tapering of opioids
- Determine impact on readmissions and falls.
Falls Prevention in Community Pharmacies

- Implement STEADI medication review in selected pharmacies (n=31)
  - Evaluate impact on
    - Use of high-risk medications
    - Fall-related emergency department visits
  - Pharmacies that did not implement (n=34) are used as a comparison group
Adaptation of STEADI

- Pharmacists screen older adults
  - Take ≥ 4 medications
  - Take ≥ 1 high-risk medications
  - Three STEADI questions
  - Screened 3430 to date

- Comprehensive medication review
  - Review/manage medications linked to falls
  - Provide patient education brochures
  - 1252 reviews completed to date

- Communicate with PCP
  - Recommend medication changes
  - Refer patient for gait, balance & strength assessment
  - 601 follow-ups received to date

1. Have you fallen in the past year?
   - Number of falls?
   - Injuries from falls?

2. Do you feel unsteady when standing or walking?

3. Do you worry about falling?
Mobility

- Mobility is being able to safely and reliably go
  - Where you want to go
  - When you want to go
  - How you want to get there

- Mobility-related injuries are the leading cause of injury and injury death for older adults (65 years +)
  - Falls
  - Motor vehicle crash injuries
Motor Vehicle Crashes - Limited Evidence

- Limited research on risk factors for older adults
- No clear scientific evidence for
  - When older adults should stop driving
  - How they get around once they stop
- Perception of older adults as bad drivers not always correct
  - Older adults more likely to be injured due to increased frailty with age
Falls - Evidence not Commonly Known

- Known modifiable risk factors for falls
  - Muscle strength
  - Gait and balance
  - Medication use
  - Vision impairment
  - Trip hazards in the home
- Falls viewed as part of aging
  - Unaware of how to prevent

Four things YOU can do to prevent falls:
- Have your healthcare provider review your medicines.
- Exercise to improve your balance and strength.
- Have your eyes and feet checked.
- Make your home safer.
“We do not know nearly enough about the safe mobility experience of older adults in the United States. While information about falls, driving, social networks, home safety, community walkability and other silos of research are out there, no one has linked all these silos together. We cannot paint a picture of what adults age 65 and older experience when they try to get where they want to go.”

“...when it comes to a holistic nationwide understanding of the trends and patterns in older adult safe mobility, we are driving blind.”
Mobility Planning Tool

➢ Theory- and evidence-based

➢ Multiple rounds of testing:

1. Survey 1000 adults aged 60-74 years
   a) Pre-survey
   b) All 1000 got tool
   c) Post-survey

1. Case-control study 377 adults aged 60-74 years
   a) Pre-survey
   b) Half of group gets draft tool
   c) Post-survey

2. Focus groups 30 adults aged 60-74 years
   a) Refine draft tool
Percent of older adults responding very much pre- and post-review of mobility tool, 2014 (n=1000)
Percent of Older Adults (60-74 years) Reporting Activity by Intervention Group (n=377)

- **MySelf-Physical activity to increase strength**
  - Treatment: ~85%
  - Treatment-completed plan: ~90%
  - Comparison: ~70%

- **MyHome-Checked home tripping hazards**
  - Treatment: ~80%
  - Treatment-completed plan: ~90%
  - Comparison: ~70%

- **MyCommunity-Gathered information on transportation options**
  - Treatment: ~40%
  - Treatment-completed plan: ~50%
  - Comparison: ~30%
Mobility Planning Tool

➢ Three areas

- MySelf: A plan to stay independent
- MyHouse: A plan to stay safe inside my home
- MyNeighborhood: A plan to stay mobile in my community

➢ Checklist in each area for developing a plan

➢ MyMobility Tips

➢ Facts about mobility
Plan to release tool

- Older Driver Safety Awareness Week
  - December 3-7, 2018
For more information please contact
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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.